"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, I. I.

137-58-1-667D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 103 (USSR)

AUTHOR: Kazanskaya, I. I.

TITLE: An Investigation into the Major Parameters of the Process of Rolling Round Periodic Sections on Three-high Mills (Issledovaniye osnovnykh parametrov protsessa prokatki kruglykh periodicheskikh profiley na trekhvalkovykh stanakh)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Tsentr. n.-i. in-t tekhnol. i mashinostr. (Central Scientific Research Institute for Technology and Mechanical Engineering), Moscow, 1957.

ASSOCIATION: Tsentr. n.-i. in-t tekhnol. i mashinostr. (Central Scientific Research Institute for Technology and Mechanical Engineering), Moscow

1. Rolling mills—Mathematical analysis

Card 1/1

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1. KAZANSKAYA, I.I.

PHASE II BOOK EXPLOITATION 494-II

Smirnov, V. S.; Anisiforov, V. P.; Vasil'chikov, M. V.; Granovskiy, S. P.; Kazanskaya, I. I.; Kuz'min, A. D.; Mekhov, N. V.; Pobedin, I. S.

Poperechnaya prokatka v mashinostroyenii (Cross Rolling in the Machine-building Industry) Moscow, Mashgiz, 1957. 375 p. 4,500 copies printed.

Ed. (title page): Tselikov, A. I., Corresponding Member, USSR Academy of Sciences, and Smirnov, V. S., Doctor of Technical Sciences, Professor; Ed. (inside book): Kamnev, P. V.; Ed. of Publishing House: Leykina, T. L.; Tech. Ed.: Sokolova, L. V.; Managing Ed. of the Leningrad Branch of Mashgiz: Bol'shakov, S. A., Engineer.

INTRODUCTION

In this book, which is devoted to the study of cross rolling and helical cross-rolling processes in the Soviet machine-building industry, the authors discuss very systematically and in detail the principles, theory, and technological aspects of roll forming of balls and gears as well as die rolling of periodic shaped stock.

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The terms cross rolling (poperechnaya prokatka) and helical cross rolling (poperechno-vintovaya prokatka) require a brief explanation here. By cross rolling, the Russians understand a rolling process in which two parallel rolls revolve in the same direction, their longitudinal axes being parallel to the axis of the work. The term helical cross rolling denotes a rolling operation between cone rolls, the axes of which are slightly inclined to opposite angles, thus producing a helical advance of the work. Die rolling in this case is a special type of helical cross rolling in which helically grooved rolls are used, instead of plain tapered ones, to produce shapes such as balls, rollers, annular shapes, periodic profiles, etc. The rolling of bearing balls is said to have already replaced the ball-pressing method in the USSR, increasing productivity 2 to 7 times, and saving 10 to 25 percent in expensive alloy steels. Gear rolling is reported to be a current development project in the USSR. Rolled gears are said to have been successfully produced to grade 3 accuracy with a grade 7 to 10 surface roughness. Methods for determining rolling forces, stresses, torque, and power, based on modern concepts of the theory of plasticity and strength of materials, are discussed, and formulas derived. All the methods involved in these rolling processes are discussed with great clarity, and case histories and specific examples are included. According to the authors, the mechanical

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properties of press-formed parts or of parts machined from periodic rolled stock are considerably higher than those made from conventional plain rolled stock, not to mention a 20 to 30 percent saving in material.

The development of the theoretical principles and the technological processes of cross rolling and helical cross rolling in the USSR is said to have been carried on intensively since 1942. The theory was developed by V. S. Smirnov on the basis of experiments conducted at the Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute) and later at the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute). The development of machinery and equipment for cross rolling and helical cross rolling was supervised by A. I. Tselikov at the TsNIITMASh (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya – Central Scientific Research Institute of Technology and Machinery). Some machine-building plants, e.g., the Gor'kovskiy avtomobil'nyy zavod (Gor'kiy Automobile Plant), have developed cross-rolling mills of their own design. The contents of this book are reviewed below, chapter by chapter.

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S/775/62/002/000/004/011

AUTHOR: Kazanskaya, I. I.

TITLE: Three-roll mills for the rolling of variable-section rounds.

SOURCE: Avtomatizatsiya protsessov mashinostroyeniya. t. 2: Goryachaya obrabotka metallov. Moscow, Izd-vo AN SSSR, 1962, 166-170.

TEXT: The sole practicable process for the rolling of rounds with longitudinally varying cross-section is the cross-helical rolling method developed under the direction of A. I. Tselikov, corresponding member, AS USSR. The method saves thousands of tons of metal and is fully automatable. The three-roll mills of TsKBMM (Central Design Bureau for Metallurgical Machinery, now V-NIIMetMash or All-Union Scientific Research Institute for the Planning and Design of Metallurgical Machinery) differ from other helical-rolling equipment as follows: (1) Three narrow conical or disk-shaped rolls operate against an axial pull applied to the billet, thereby exerting a deformation on a small portion of the billet and avoiding the usual defects engendered in cross-rolling; (2) the roll spacing is altered by means of 3 hydraulic cylinders actuated by a guide-profile-follower control. Conical rolls are used for a diametral reduction of up to 2, disk-type rolls serve in reductions of up to 1.6-1.7. The disk rolls simplify the mill design, shorten the leading end of the billet, and permit steeper transition from one rolled diameter

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to another, but consume more power. The "Mark 70" mill set up at the MZMA is used as a specific example. The billet is heated to 1,100-1,200°C, inserted into the inter-roll space, grasped by the puller, and simultaneously set into rotation by the radially approaching 3 rolls. The puller advances, and the 3 rolls (mutually linked to ensure concentricity of the resulting billet rotation) are pressed together andmoved apart in response to the guide-profile-follower control. A pneumatically lifted boat receives the rolled billet and, upon release and issuance, lowers it to an inclined table. All operations are automated. The TsKBMM developed 6 types of industrial mills for this type of variable-section rolling with diameters up to 10, 20, 50, 80, 120, and 220 mm. Seven mills of the first 4 types are engaged in actual production work, 5 at the Kolomenskoye plant for textile-machinery building, 1 at the MZMA in the production of automotive semiaxles, and 1 at the plant imeni Dzerzhinskiy in Dneprodzerzhinsk. Advantages of the process: (1) 10-30% reduction in metal consumed per unit acceptable product (in comparison with forging; example illustrated: Moskvich camshaft); (2) possible reduction in machining time because of reduced machining allowances; (3) reduced workload on forging presses and hammers; (4) improved microstructural quality, finer grain, and higher fatigue strength, notch toughness, and plasticity, of the resulting shafts; (5) flexibility of equipment, since a change from one profile sequence to another entails merely the replacement of the profile guide rail; (6) high productivity, with a

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billet-delivery rate of 3-5 m/min, which corresponds to a delivery of 65 railroad-car axles per hr, as compared with only 50-70 axles per work shift delivered by a forge; (7) suitability for total automation. There are 3 figures; no tables or references.

ASSOCIATION: None given.

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KAZANSKAYA, I.I., kand.tekhn.nauk; PANFILOV, M.G., inzh.; IPPOLITOV, V.I.

Causes for the appearance of defects in helical-cross rolling of circular periodic shapes. Stal' 22 no.9:824-826 S '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut metallurgicheskogo mashinostroyeniya.
(Rolling (Metalwork))

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DUDKIN, M.S.; SOLOVIEVA, Ye.I.; KATANSKAYA, I.S.

Homogeneity of xylans from the surface layers of grain. Zhur. prikl. khim. 38 no.1:221-222 Ja '65. (MIRA 18:3)

1. Odesskiy tekhnologicheskiy institut imeni Lomonosova.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

MEDVEDEVA, Ye.I.; DUDKIN, M.S.; KAZANSKAYA, I.S.

Amino acid composition of some types of vegetable raw material not used as food. Nauch. dokl. vys. shkoly; biol. nauki no.4: 140-144 '64. (MIRA 17:12)

1. Rekomendovana kafedroy organicheskoy khimii Odesskogo tekhnologicheskogo instituta.

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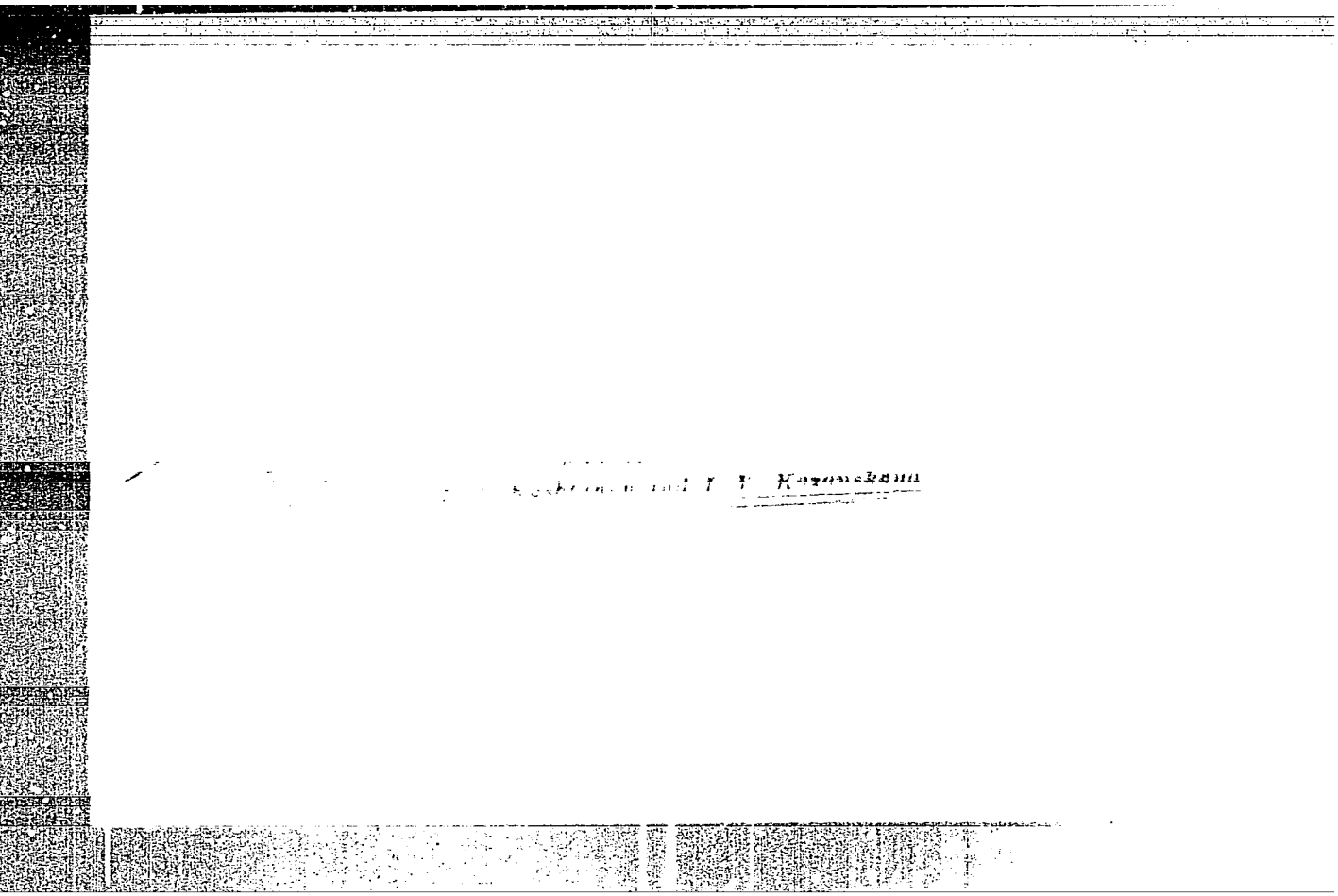

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EXCERPTA MEDICA Soc.14 Vol.12/5 Radiology May 1958

KAZANSKAYA L.D.

822. RECOGNITION OF SCOLIOSIS IN SCHOOLCHILDREN BY MEANS OF FLUOROROENTGENOGRAPHY (Russian text) - Kazanskaya L.D. - VESTN. RENTGENOL. RADIOL. 1956, 6 (46-50)

720 cases of scoliosis were diagnosed among 10,000 schoolchildren from 19 schools of Yaroslav by means of fluororoentgenography. Of those 720 cases, 325 (45.1%) were in children 7-10 yr. old. In addition to the routine antero-posterior fluororoentgenogram of the chest, postero-anterior pictures of the lumbo-dorsal segment of the spine were also taken. Somewhat harder rays (85 kv., 25-30 ma.) were used and exposure time was 1-2 sec., with holding of the breath. The automatic postural correction of functional scoliosis precluded its diagnosis by fluororoentgenography. The diagnosed cases were classified according to direction, localization, configuration and degree of the scoliosis, 1st degree scoliosis being defined as deviation from the perpendicular of less than 10°, and 2nd degree more then 10°. The fluororoentgenographic data so obtained were found to correspond closely to data obtained by goniometry in a group of 100 children. Fluororoentgenography was found to be a useful procedure for the early recognition of scoliosis and for the control of treatment by remedial exercises.

Chair of Roentgenology and Radiology,
Yaroslav Med. Inst. and Yaroslavskoy gorodskoy Flyurograficheskoy stantsii
(zav. L. D. Kazanskaya)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, L. N., Cand Biol Sci -- (diss) "Phosphorus metabolism in the ontogenesis of spring wheat." Leningrad, 1960. 17 pp; (Ministry of Education RSFSR, Leningrad State Pedagogical Inst im A. I. Gertsen); 250 copies; price not given; (KL, 29-60, 125)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, L.N.

Dynamics of nucleic acids and other phosphrous-bearing compounds in leaves of the "Diamant" wheat during its ontogenic development. Nauch.dokl.vys.shkoly; biol.nauki no.2:153-157 '60. (MIRA 13:4)

1. Rekomendovana kafedroy fiziologii rasteniy Leningradskogo sel'skokhozyaystvennogo instituta.
(WHEAT) (PHOSPHORUS METABOLISM)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, L.N.

Using the radioisotope of phosphorus in studying phosphorus metabolism in the ontogeny of spring wheat (Triticum vulgare Host). Bot.zhur. 45 no.7:1055-1059 Jl '60. (MIRA 13:7)

1. Leningradskiy sel'skokhozyaystvennyy institut, g. Pushkin.
(Phosphorus metabolism)
(Tracers (Biology))
(Wheat)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, L.N.

Phosphorus metabolism in the ontogeny of spring wheat. Fiziol. rast. 7 no.2:234-237 '60. (MIRA 14:5)

1. Leningrad Agricultural Institute, Leningrad - Pushkin.
(Wheat)
(Phosphorus metabolism)
(Ontogeny (Botany))

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, Lyudmila Nikolayevna, kand. biol. nauk; YEGOROVA, A.G., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Chemical nature and possible ways of improving the taste and flavor of bread]Khimicheskaia priroda i vozmozhnye puti uluchsheniia vkusa i aromata khleba; stenogramma doklada, prochitannogo v LDNTP na seminare rabotnikov khlebopekarnoi promyshlennosti. Pod red. A.G. Egorovoi. Leningrad, 1962. 50 p. (MIRA 15:9)

(Bread)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

YEGOROVA, A.G.; KAZANSKAYA, L.N.; LORANOVA, A.Ya.; MELIKHOVA, Z.V.; BESPALOVA, I.G.; SHCHERBACH, V.A.

[Using the new yeast and lactic acid bacteria strains in making tin rye bread] Prigotovlenie rzhanogo formovogo khleba s primeneniem novykh shtammov molochnokislykh bakterii i drozhzhei. Moskva, TSentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 28 p.
(MIRA 17:9)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

YEGOROVA, A.G.; KAZANSKAYA, L.N.; SEMIDT, Z.I.; [illegible]; BEZRUCHENKO, L.P.

[New strains of lactic acid bacteria for rye leaven preparation] Novye shtammy molochnokislykh bakterii rzhanykh zakvasok. Moskva, TSentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 34 p. (MIRA 17:8)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

PLOTNIKOV, P.N.; KAZANSKAYA, L.N.; BESPALOVA, O.I.; BEZRUCHENKO, L.F.; KRASIL'NIKOVA, Ye.Ye.; SHCHERBACH, V.A.; BROVKIN, S.I., spets. red.

[Use of liquid intermediate products in the making of wheat flour breads] Primenenie zhidkikh polufabrikatov pri proizvodstve pshenichnykh sortov khleba. Moskva, TSentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 39 p. (MIRA 18:5)

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L 2847-66 EWP(e)/EWT(m)/EPF(c)/EWA(d)/EWP(t)/EWP(k)/EWP(z)/EWP(b) LJP(c)
MJW/JD/WB

ACCESSION NR: AT5022891 UR/2776/65/000/043/0081/0098

AUTHOR: Shchegoleva, R. P.; Reutova, N. P.; Golubeva, L. S.; Poplavskaya, V. L.; Kazanskaya, L. N.

TITLE: Powdered-metal stainless chrome and chrome-nickel steels

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 43, 1965. Poroshkovaya metallurgiya (Powder metallurgy), 81-98

TOPIC TAGS: powder metallurgy, stainless steel, chromium steel, nickel steel, corrosion resistance

ABSTRACT: It is shown that the powders of stainless chrome and chrome-nickel steels in the ferritic, austenitic, and martensitic-austenitic classes, prepared by the method of the combined reduction of metal oxides by means of CaH_2, are suitable for the industrial fabrication of porous and compact sheets and strips by the direct method of powder rolling. The flowsheet of production of these powders has the following sequence: raw materials -- iron powder (carbonyl and other types of Fe), chromium oxide (Cr_2O_3), nickel (electrolytic, carbonyl)

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powder or NiO, Ni_2O_3, calcium hydride (CaH_2); charge blending (2.5 hr); reduction at 1175°C for 6-8 hr, $Cr_2O_3 + 3CaH_2 = 2Cr + 3CaO + 3H_2$; crushing of sinter; slaking with H_2O and pulverization; hydrocyclone treatment of pulp; leaching -- $Ca(OH)_2 + 2HCl = CaCl_2 + 2H_2O$; washing to remove $CaCl_2$; centrifuging; vacuum drying, 60-70°C. Sintered stainless steels display high physical properties, which warrants recommending them for the fabrication of the elements and devices performing in aggressive media. When pressed under a pressure of 10 t/cm^2 and subjected to deformation and heat treatment, powdered-metal stainless steels are not inferior to steels produced by the smelting method as regards their physical properties and corrosion resistance. Thus, for example, corrosion tests of Kh18N15 stainless austenite steel in a 65% solution of boiling HNO_3 demonstrated the high corrosion strength of this steel, not inferior to that of deformed cast steel (corrosion rate 0.1-0.16 g/m^2-hr). Evidently these good qualities of powdered-metal stainless steels are attributable to the low content of impurities in the powders prepared by the combined oxide reduction method. Orig. art. has: 10 figures, 9 tables.

ASSOCIATION: none

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L 2847-66
ACCESSION NR: AT5022891

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 007 OTHER: 007

BVK
Card 3/3

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ACC NR: AR6035416 SOURCE CODE: UR/0137/66/000/009/G023/G023

AUTHOR: Shishkhanov, T. S.; Rabinovich, Ye. M.; Kudinova, K. G.; Sariadi, F. S.; Kazanskaya, L. N.

TITLE: Reduction of titanium-hydride with increased hydrogen content

SOURCE: Ref. zh. Metallurgiya, Abs. 9G167

REF. SOURCE: Sb. Proiz-vo stali i splavov i vliyaniye obrabotki na nikh svoystva. Tula, 1965, 31-35

TOPIC TAGS: titanium compound, metal hydride, chemical reduction, hydration

ABSTRACT: Titanium powder reduced by Ca hydride (IMTU 987-63), titanium sponge TG-00 produced by a magnesium-thermal process (MRTU-14 no. 19-64), and electrolytic iron produced by the method of dissolved anodes, were all hydrated with H_2 of 99.99% purity containing $\leq$ 0.003% of O_2 and $\leq$ 0.2 g/m^3 of moisture. The optimal hydration condition was determined, namely hydration temperature 650°, soaking at this temperature, flow of H_2 of 8m^2/hr until the end of absorption, and cooling in air at a flow of H_2 $\leq$ 0.5 m^3/hr. Introduction of these conditions in industry has ensured production of titanium hydride with a stable hydrogen content of 3.8 -- 3.98%, and has improved the productivity of the plant. A. Shmeleva. [Translation of abstract]

SUB CODE: 11, 07

Card 1/1 UDC: 669.295.4

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ACC NR: AR7004853 SOURCE CODE: UR/0137/66/000/010/G032/G032

AUTHOR: Kudinova, K. G.; Kazanskaya, L. N.; Rabinovich, Ye. M.; Korchagin, M. I.; Mishnayevskiy, Ye. N.

TITLE: Investigation of possibility of coarsening the grain size of titanium powder by gas absorption

SOURCE: Ref. zh. Metallurgiya, Abs. 10G230

REF SOURCE: Sb. Proiz-vo stali i splavov i vliyeniye obrabotki na ikh svoystva. Tula, 1965, 50-53

TOPIC TAGS: titanium, titanium powder, grain size, reduction

ABSTRACT: Titanium powder with a grain size of $\geq 45\mu$ has the optimum gas absorbing capacity. In order to coarsen titanium powder by reducing titanium oxide with calcium, a finished powder of titanium metal with a grain size of $\leq 10\mu$ was added to the charge as the finished crystallization centers. By adding up to 8% titanium powder to the charge, the yield of the coarse-grained fraction of the reduced titanium increases up to 48%; further additions of titanium

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Card 2/2

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KAZANSKAYA, L.S., inzh.

Air conditioning of capron factories. Vod. i san. tekh. no.9:16-20 S '65. (MIRA 18:9)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, L.S.

Basic indices of air-conditioning systems for public and municipal buildings. Vod. i san. tekh. no.12:20-24 D '58. (MIRA 11:12)
(Public buildings--Air conditioning)
(Municipal buildings--Air conditioning)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ROMANOVSKIY, R.M.; KAZANSKAYA, M.V.; LIPMANOVICH, S.G.

Outcome of labor complicated by anomalies in its intensity for the mother and fetus. Vop. okh. mat. i det. 6 no.10:58-63 O '61.
(MIRA 14:11)

1. Iz kafedry akusherstva ginekologii (zav. - prof. I.I.Yakovlev) I Leningradskogo meditsinskogo instituta imeni akademika I.P.Pavlova (dir. A.I.Ivanov).
(LABOR, COMPLICATED)

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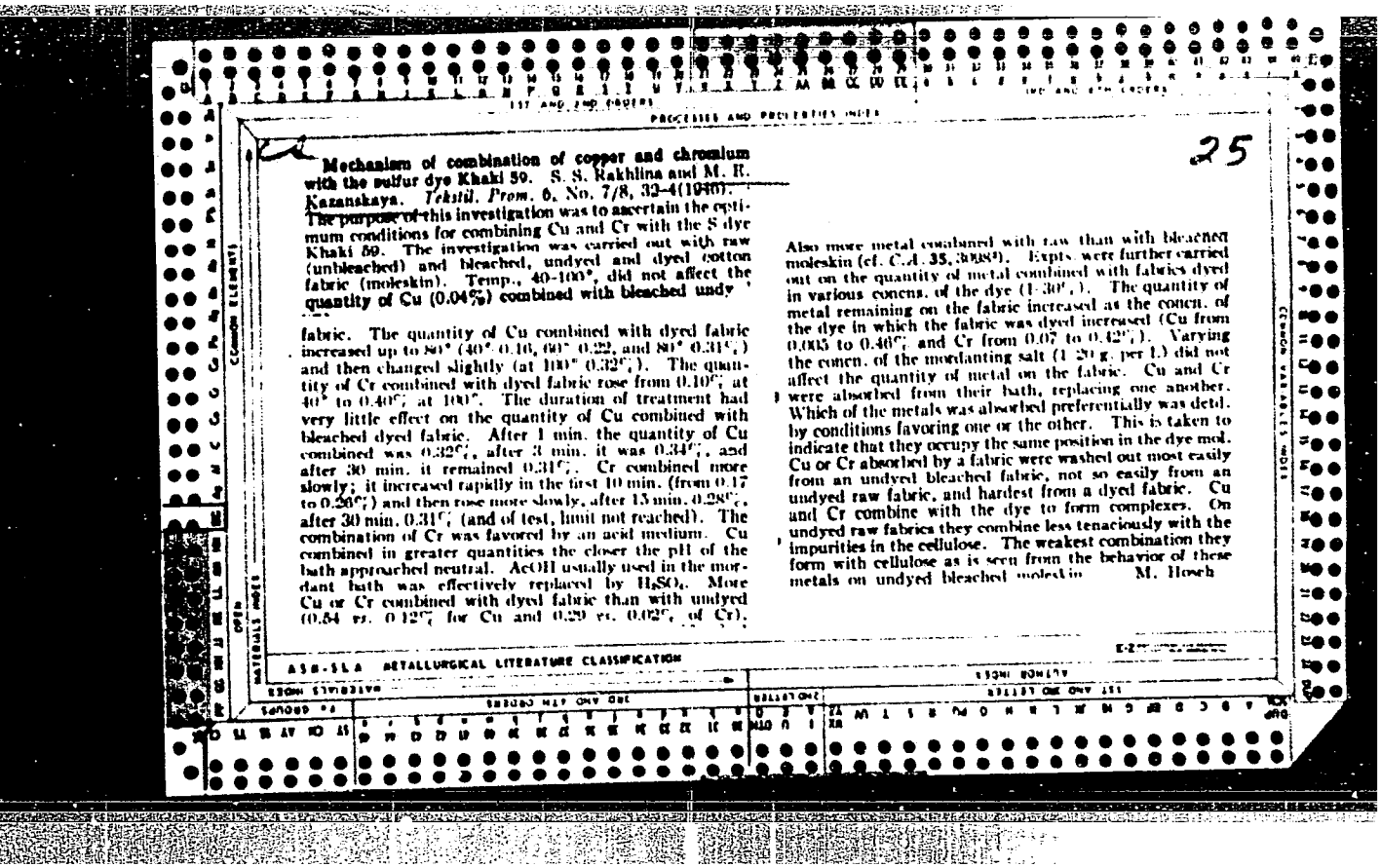

25

Mechanism of combination of copper and chromium with the sulfur dye Khaki 50. S. S. Rakhlina and M. R. Kazanskaya. *Tekstil. Prom.* 6, No. 7/8, 32–4(1946). The purpose of this investigation was to ascertain the optimum conditions for combining Cu and Cr with the S dye Khaki 50. The investigation was carried out with raw (unbleached) and bleached, undyed and dyed cotton fabric (moleskin). Temp., 40–100°, did not affect the quantity of Cu (0.04%) combined with bleached undyed fabric. The quantity of Cu combined with dyed fabric increased up to 80° (40° 0.10, 60° 0.22, and 80° 0.31%) and then changed slightly (at 100° 0.32%). The quantity of Cr combined with dyed fabric rose from 0.10% at 40° to 0.40% at 100°. The duration of treatment had very little effect on the quantity of Cu combined with bleached dyed fabric. After 1 min. the quantity of Cu combined was 0.32%, after 3 min. it was 0.34%, and after 30 min. it remained 0.31%. Cr combined more slowly; it increased rapidly in the first 10 min. (from 0.17 to 0.26%) and then rose more slowly, after 15 min. 0.28%, after 30 min. 0.31% (and of test, limit not reached). The combination of Cr was favored by an acid medium. Cu combined in greater quantities the closer the pH of the bath approached neutral. AcOH usually used in the mordant bath was effectively replaced by H_2SO_4. More Cu or Cr combined with dyed fabric than with undyed (0.84 vs. 0.12% for Cu and 0.29 vs. 0.02% of Cr). Also more metal combined with raw than with bleached moleskin (cf. C.A. 35, 3088). Expts. were further carried out on the quantity of metal combined with fabrics dyed in various concns. of the dye (1–30%). The quantity of metal remaining on the fabric increased as the concn. of the dye in which the fabric was dyed increased (Cu from 0.005 to 0.40% and Cr from 0.07 to 0.42%). Varying the concn. of the mordanting salt (1–20 g. per l.) did not affect the quantity of metal on the fabric. Cu and Cr were absorbed from their bath, replacing one another. Which of the metals was absorbed preferentially was detd. by conditions favoring one or the other. This is taken to indicate that they occupy the same position in the dye mol. Cu or Cr absorbed by a fabric were washed out most easily from an undyed bleached fabric, not so easily from an undyed raw fabric, and hardest from a dyed fabric. Cu and Cr combine with the dye to form complexes. On undyed raw fabrics they combine less tenaciously with the impurities in the cellulose. The weakest combination they form with cellulose as is seen from the behavior of these metals on undyed bleached moleskin. M. Hosch

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

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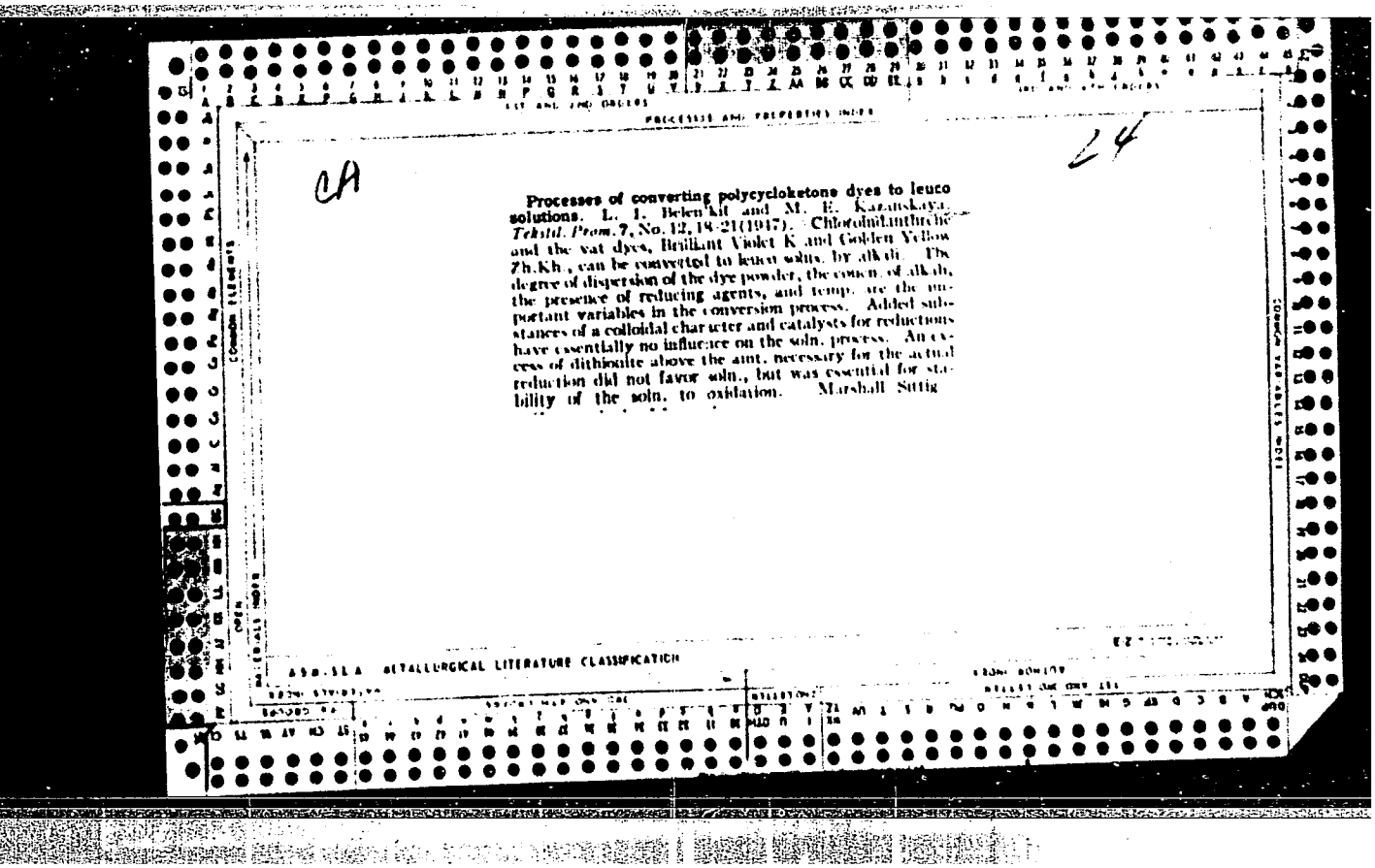

CA

24

Processes of converting polycycloketone dyes to leuco solutions. L. I. Belen'kii and M. E. Kazanskaya. *Tekstil. Prom.* 7, No. 12, 18-21(1947). Chlorodiinthrone and the vat dyes, Brilliant Violet K and Golden Yellow Zh.Kh., can be converted to leuco solns. by alkali. The degree of dispersion of the dye powder, the concn. of alkali, the presence of reducing agents, and temp. are the important variables in the conversion process. Added substances of a colloidal character and catalysts for reductions have essentially no influence on the soln. process. An excess of dithionite above the amt. necessary for the actual reduction did not favor soln., but was essential for stability of the soln. to oxidation. Marshall Sittig

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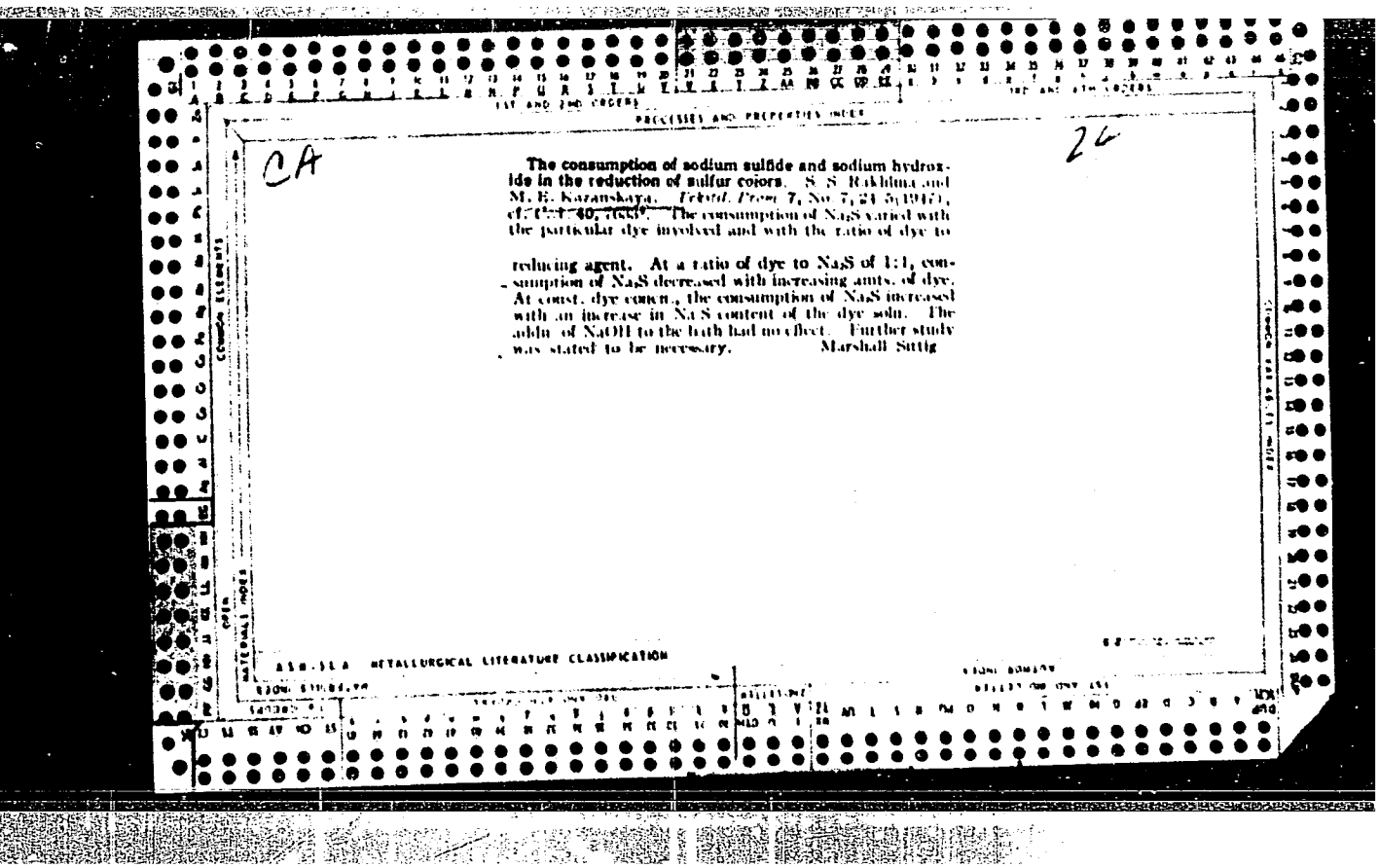

CA

24

The consumption of sodium sulfide and sodium hydroxide in the reduction of sulfur colors. S. S. Rykhina and M. E. Kazanskaya. *Tekstil. Prom.* 7, No. 7, 24-5 (1947); cf. C.A. 40, 7655[9]. The consumption of Na_2S varied with the particular dye involved and with the ratio of dye to reducing agent. At a ratio of dye to Na_2S of 1:1, consumption of Na_2S decreased with increasing amts. of dye. At const. dye concn., the consumption of Na_2S increased with an increase in Na_2S content of the dye soln. The addn. of NaOH to the bath had no effect. Further study was stated to be necessary. Marshall Sittig

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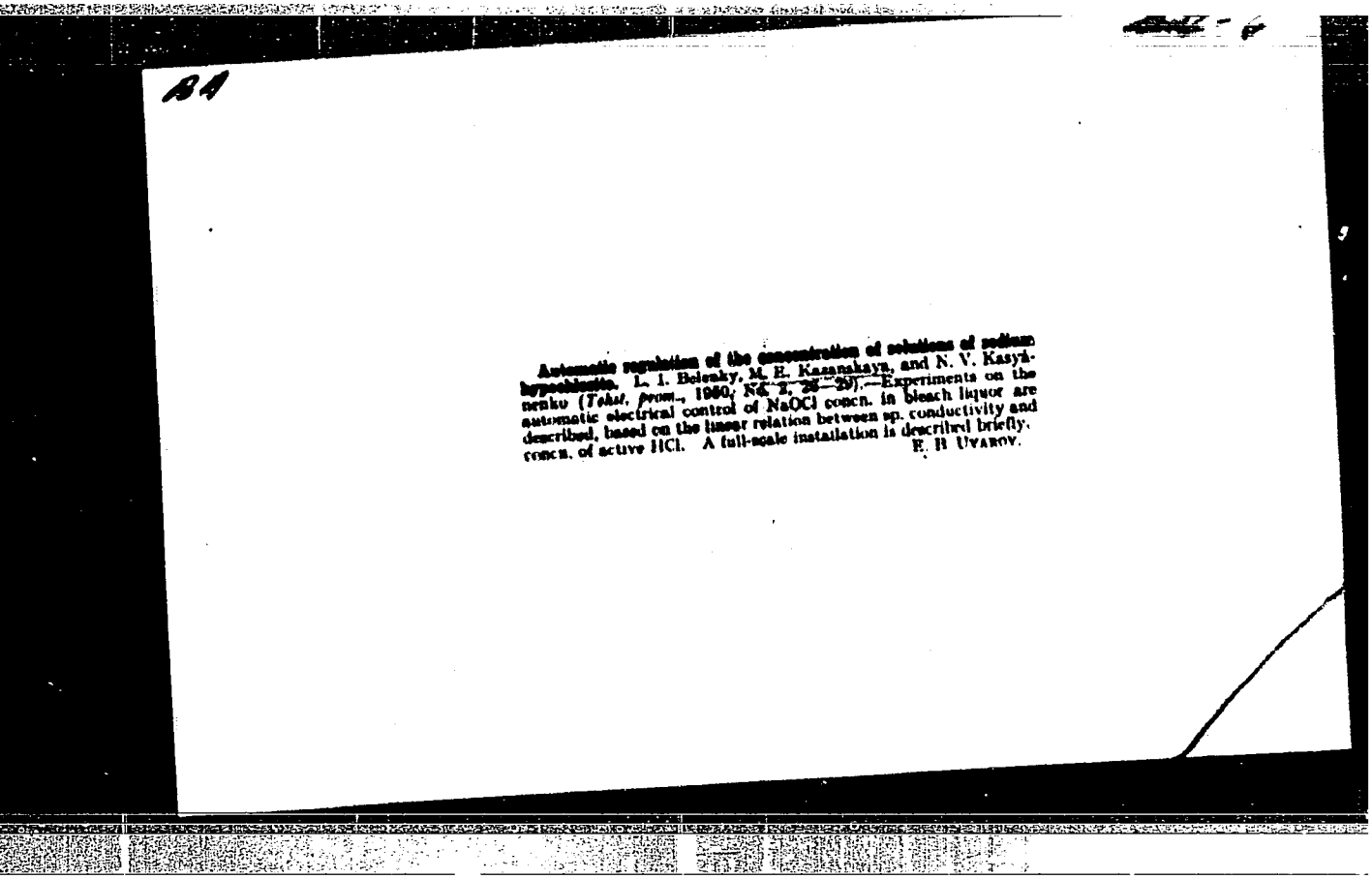

84

Automatic regulation of the concentration of solutions of sodium hypochlorite. L. I. Belenky, M. E. Kazanskaya, and N. V. Kasyanenko (*Tekst. prom.*, 1960, No. 2, 28–29).—Experiments on the automatic electrical control of NaOCl concn. in bleach liquor are described, based on the linear relation between sp. conductivity and concn. of active HCl. A full-scale installation is described briefly.
E. H. Uvarov.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BELEN'KIY, L.I.; KAZANSKAYA, M.Ye.

Colorimetric analysis of stable diazo salts and solutions. Tekstil'.Prom. 12, No.11, 37 '52. (MLRA 5:11)
(CA 47 no.22:12131 '53)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BELEN'KIY, L.I., KAZANSKAYA, M.YE.

Sodium Hyposulfite

New method of analyzing hydrosulfite, Tekst. prom. 12, No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, Unclassified.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAJA, M.; BIELENKIJ, L.

Controlling processes of dyeing with vat dyes. Tr. from the Russian.

p. 144
Vol. 8, no. 5, Sept./Oct. 1954
PRZEMYSL WLOKIENNICZY
Lodz

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 2
Feb. 1956

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, M.E.

A new method for the analysis of dithionite. E. I.
Belen'kii and M. E. Kazanskaya. Tekstil. Prom. 9, 59-60
(1951).—The method, which is applicable to dyehouse
dithionite solns., including those contg. leuco compds.
of vat dyes, depends on the use of the dye Acid Red S
(Amaranth, C. I. 184), which in neutral or alk. soln. is re-
duced to naphthionic acid and amino-R-acid, while the
$Na_2S_2O_4$ is oxidized to $NaHSO_3$. A measured amt. of the
$Na_2S_2O_4$ soln. is added to a known vol. of a 20 g./l. soln. of
the dye, the quantities being so chosen that the dye is in
excess. After suitable diln., the unreduced Acid Red is
detd. with the photoelectric colorimeter. When leuco vat
dyes are present in the soln., it is necessary to filter off the
pptd. vat pigments before diln. and estn. The operations
should be carried out within 0.5 hr. to avoid a further reduc-
tion by the sulfite present. Details of standardization are
given.

W. E. Matheson

(1)

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KAZANSKAYA, M.E.

3

(2)

Control of vat dyeing. L. I. Belen'kii and M. E. Kazanskaya. *Tekstil. Prom.* 14, No. 2, 50-3(1954); cf. *C.A.* 47, 6820h.—The vat-dyeing process (1 or 2 phase) can be controlled by detg. NaOH, $NaHSO_3$, and the dye concns. in the leuco soln. or in the suspension and the amt. of the dye on the fiber with the help of a photoelec. colorimeter, potentiometric titration, and a pH meter. Elisabeth Barabash

10-15-54

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, M.Ye.

BELEN'KIY, L.I.; KAZANSKAYA, M.Ye.; KHAZANOV, V.S.; YUROV, S.G.

Testing the whiteness of fabrics with a FT-1 textile photometer. Tekst.prom. 15 no.4:43-47 Ap '55. (MLRA 8:5)
(Photometry) (Textile fabrics--Testing)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, M.Ye.

PRIKHOT'KO, A.F.

24(7) p 3 PHASE I BOOK EXPLOITATION SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo Soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Pisychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Lazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Landsberg, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Card 12/30

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

Kazanskaya, M. Ye.

BELEN'KIY, L.I.; KAZANSKAYA, M.Ye.; YAVORSKIY, B.M.; KAMENETSKIY, V.D.

Spectrophotometric analysis of leuco esters (with summary in English). Zhur.fiz.khim.31 no.7:1564-1572 Jl '57. (MIRA 10:12)

1. Institut khlopchato-bumazhnoy promyshlennosti, Moskva.
(Spectrophotometry) (Esters)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BELEN'KIY, L. I.; KAZANSKAYA, M. Ye.; BRONBERG, T. V.

"Work in the Field of Dyestuff Absorption Spectra."

report presented at the Section on Colloid Chemistry, VIII Mendeleyev Conference of General and Applied Chemistry, Moscow, 16-23 March 1959.
(Koll. Zhur. v. 21, No. 4, pp. 509-511)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BELEN'KIY, L.I.; BROMBERG, T.V.; KAZANSKAYA, M.Ye.

Spectrophotometric method of quantitative analysis of the interaction between dyes and textile fibers. Nauch.-issl. trudy TSNIKHBI za 1958 g:115-123. (MIRA 16:1)
(Dyes and dyeing—Textile fibers) (Spectrophotometry)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BELEN'KIY, L.I.; BROMBERG, T.V.; KAZANSKAYA, M.Ye.

Radiochemical oxidation of vatsol dyes. Nauch.-issl.trudy TSNIKHBI za 1958 g.123-144. (MIRA 16:1)
(Dyes and dyeing--Chemistry)

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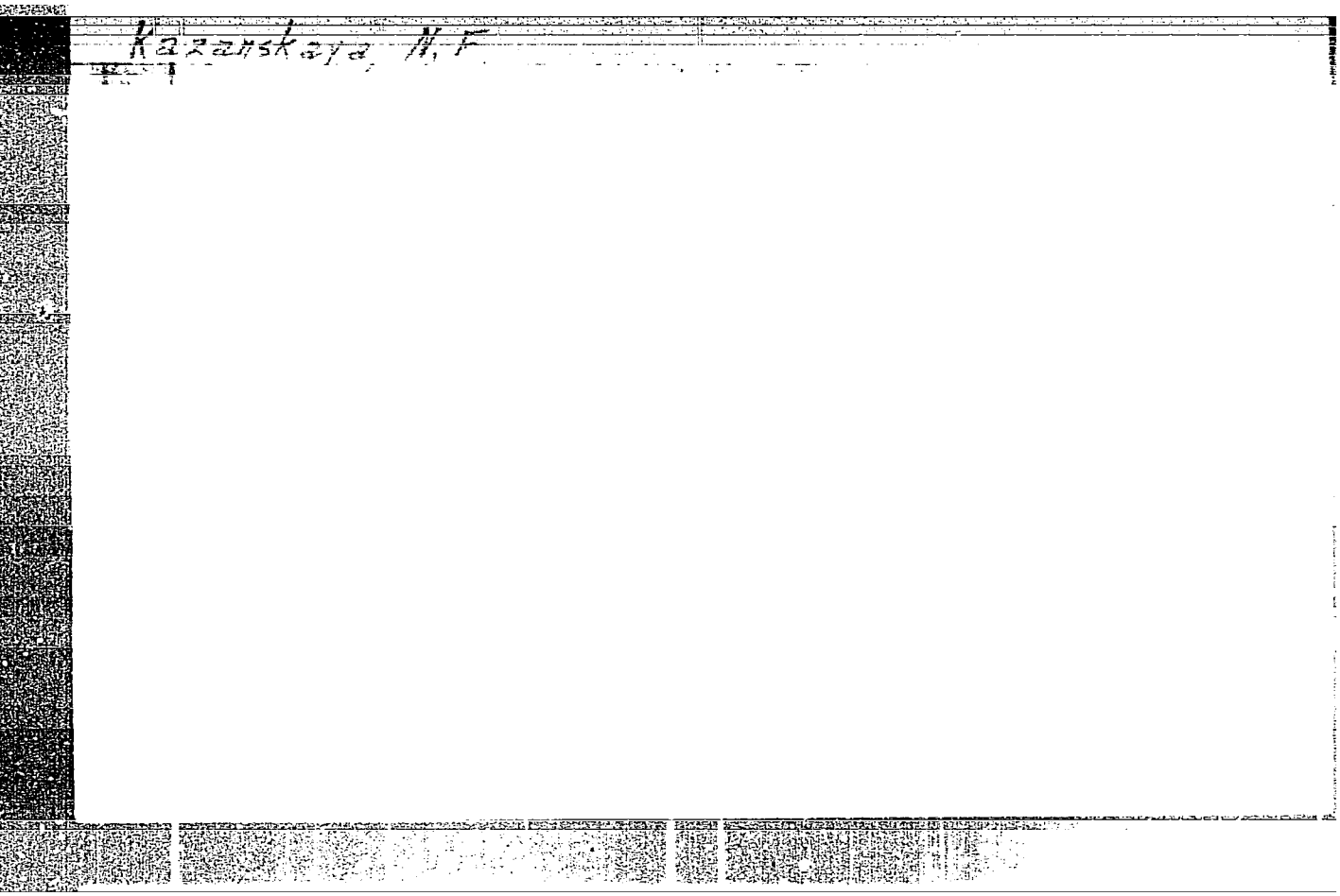

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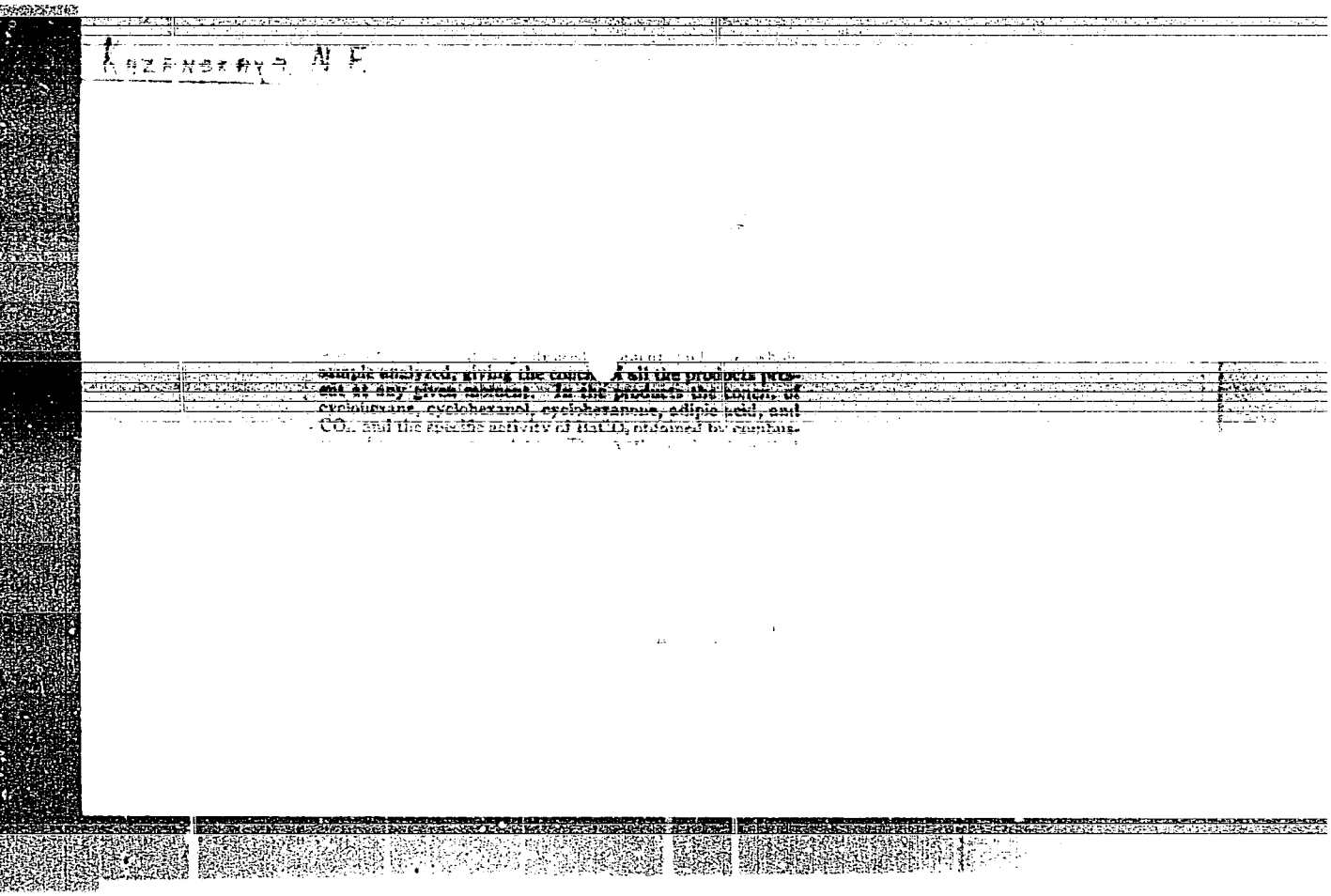

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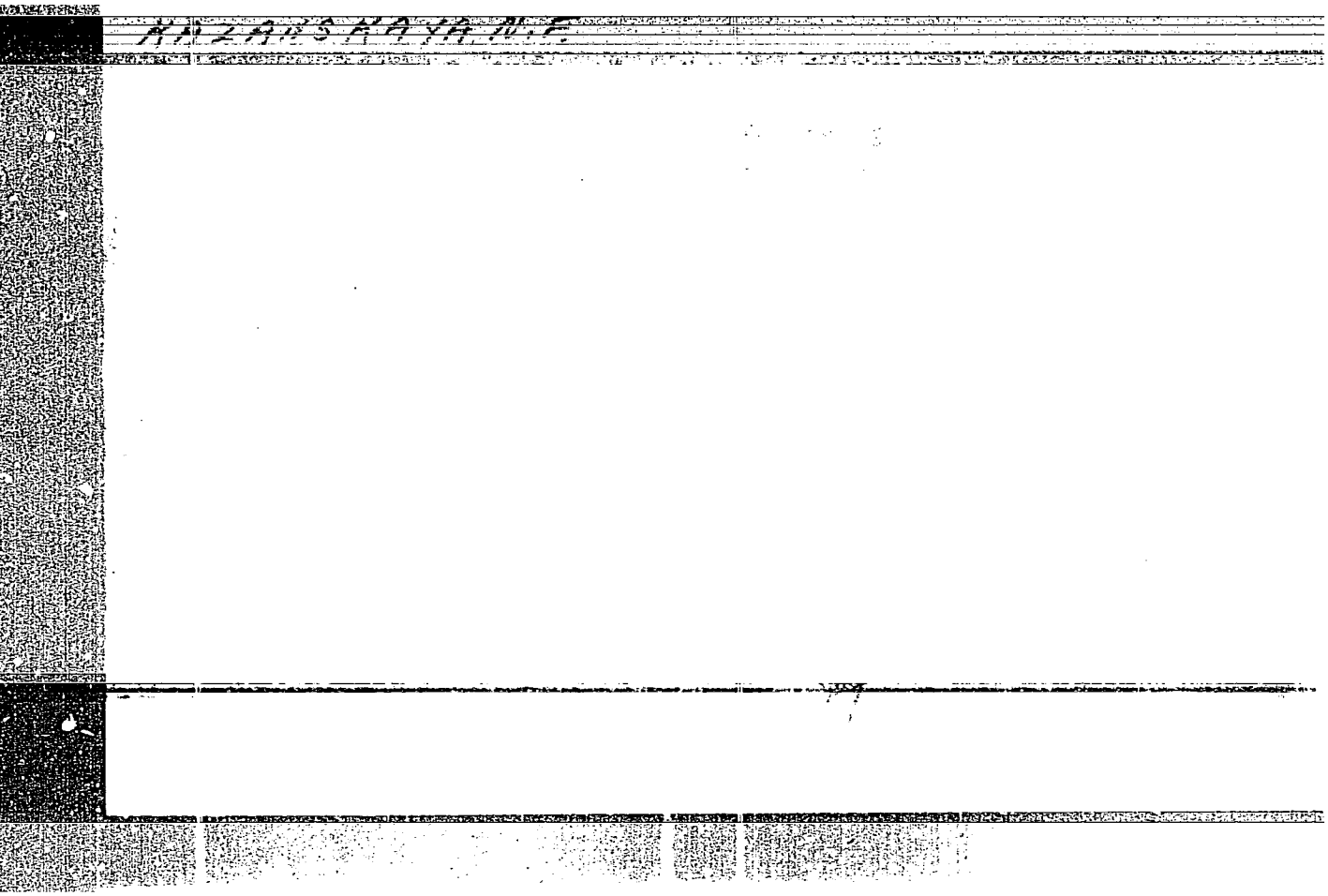

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

SOV 76-32-6-5/46

AUTHORS: Berezin, I. V., Kazanskaya, N. F., Meluzova, G. B.

TITLE: A Method of the Quantitative Analysis of Cyclohexanone and Cyclohexanol in Oxidation Products of Cyclohexane by Means of Infrared Absorption Spectra (Metod kolichestvennogo analiza tsiklogeksanona i tsiklogeksanola v produktakh okisleniya tsiklogeksana po spektrum pogloshcheniya v infrakrasnoy oblasti)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6, pp. 1218-1225 (USSR)

ABSTRACT: A method of analysis serving in a number of kinetic investigations was developed. An infrared spectrometer of the type IKS -1 with automatic recording equipment EPP 09 and with cuvettes of special construction was used. A description of the apparatus and a schematic figure are given. By making use of the different intensity of the spectral bands the analysis could be conducted in such a way as to determine ketone and alcohol in the same cuvette, which is important because of the small amount of sample substance. The determina-

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

A Method of the Quantitative Analysis of Cyclohexanone and Cyclohexanol in Oxidation Products of Cyclohexane by Means of Infrared Absorption Spectra

tion of the concentration of the substances was conducted according to the law by Lambert-Beer, employing the extinction coefficient. At higher concentrations of alcohol the sample had to be diluted. A comparison of the results obtained with that of other methods showed that the determination is not disturbed by the presence of peroxides. On the other hand, a ketone is present in the sample, the cyclohexanone. The presence of other oxidation products does not disturb its determination. A hydration is proposed in order to prevent an increase of the results caused by the influence of substantial amounts of esters and acids. In order to be able to determine the ester content, the extinction coefficient of the carbonyl band was approximately determined, as well as of the mono- and dicyclohexyl esters of adipic acid. The analysis as to contents of ketones and esters in the oxidation mixture can only be conducted at optical densities below 0,3, where the spectral bands separate from each other, in case they are present simultaneously. There are 5 figures, 4 tables, and 8 references, 4 of which are Soviet.

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SOV/ 76-32-6-5/46

A Method of the Quantitative Analysis of Cyclohexanone and Cyclohexanol in Oxidation Products of Cyclohexane by Means of Infrared Absorption Spectra

ASSOCIATION: Moskovskiy gosuniversitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: September 14, 1956

1. Cyclohexanones--Quantitative analysis 2. Cyclohexanols--Quantitative analysis 3. Cyclohexanes--Reduction 4. Infrared spectrum

Card 3/3

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Kazanskaya, N.F.

21(8) 5(0) SOV/55-59-3-29/32

AUTHOR: Lapitskiy, A.V.

TITLE: The First All-Union Conference of Universities and Colleges on Radiochemistry

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, Nr 3, pp 221-223 (USSR)

ABSTRACT: This conference was convened by the initiative of the laboratoriya radiokhimii khimicheskogo fakul'teta MGU (Laboratory of Radiochemistry of the Department of Chemistry of Moscow State University) and was held in Moscow from April 20 to April 25, 1959. It was attended by professors, teachers, and scientific collaborators of 32 universities and colleges of the Soviet Union. In his opening address, An.N. Nesmeyanov, Doctor of Chemical Sciences, stressed the importance of radiochemistry. 30 lectures were delivered by members of Moscow State University: Laboratoriya yadernoy fiziki (Laboratory of Nuclear Physics): D.P. Rudenko, A.S. Sevast'yanov: Production of Beryllium-7 by the Reaction (T,2n); I. [illegible], N.P. Rudenko: Production of Radioactive Isotopes by Extraction as β-Diketonates. Laboratoriya radiokhimii (Laboratory of Radiochemistry): An.N. Nesmeyanov, B.M. Korolev, L.A. Sazonov: Separation of Radioactive Isotopes in the Irradiation of Colloids; An.N. Nesmeyanov, Ye.A. Borisov, E.S. Filatov, V. Kondratenko, Chzhan Tszyan-yan, K. Panek, B. Shukla: Secondary Reactions of the Recoil Atoms ^{80}Br and ^{82}Br in Methyl Bromides; B.G. Dzantiyev, I.M. Barkalov, V.V. Khrapov: Reactions of "Hot" Sulfur- and Nitrogen Atoms With Hydrocarbons; B.Z. Iofa, L.V. Bobrov, A.N. Ratov: The State of Radioactive Isotopes in Extremely Dilute Solutions; M.S. Merkulova, I.V. Melikhov: General Theory of the Coprecipitation of Radioactive Elements With Non-isomorphous Crystalline Precipitates; A.V. Lapitskiy, I.A. Savich, Chzhuan Yao-y: Coprecipitation of Protactinium With Complex Compounds of Ti, Nb and Ta; V.M. Vdovenko[?], V.V. Ivanenkov, V.S. Bochkarev: Application of Radioactive Paper Chromatography; K.B. Zaborenko, A.M. Babeshkin, V.S. Avil'chenko: Accumulation and Separation of Recoil Atoms on the Basis of the Example Ra^{224} and Ra^{220}; K.B. Zaborenko, A.M. Babeshkin, V.A. Beyevskaya, L.L. Melikhov: Application of the Emanation Method for the

Card 1/4

Investigation of the Transformation of Solids; V.I. Spitsyn, K.B. Zaborenko, A.M. Babeshkin, N.A. Raticheva: Transformation of Heteropoly-compounds; K.B. Zaborenko, A.M. Babeshkin, I.V. Kovalenko: Geochemistry of Radium; K.B. Zaborenko, V.I. Korobkov: Microanalytical Determination of Uranium by Means of Nuclear Emulsions. An.N. Nesmeyanov, De Dyk-Man: Partial Vapor Pressure of Co in Alloys With Ni; Yu.A. Priselkov, Yu.A. Sapozhnikov, A.V. Tsepl'yeva, V.V. Karelin: The Behavior of a Molecular Metal Beam in the High-frequency Field; I.V. Golubtsov, A.V. Lapitskiy, V.K. Shirrayev: Vapor Pressure of Niobium Dioxide; I.V. Golubtsov, Yu.A. Lisachev, Ye.K. Bakov: Various Constructions of the Scintillation Attachment to the Apparatus of the Type B. Kafedra analiticheskoy khimii (Chair of Analytical Chemistry): I.P. Alimarin, N.P. Borzenkova: Niobium^{95} as a Radioactive Tracer; I.P. Alimarin, T.A. Belyavskaya, Ku Bin-ven': Sorption of Zr by Ion Exchangers; A.I. Busev, V.M. Byr'ko: The Use of Complex Pyrazolinedithiocarbamates in Radiometry. Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry): Ye.A. Ippolitova, Yu.P. Simanov, L.M. Kovba, G.P. Polunina, I.A. Bereznikova: Uranates of Some Bivalent Metals; V.V. Knyazina, G.S. Nechkova: Uranium Compounds With Acids of Low-valence P; V.I. Spitsyn: The Influence of the Radioactive Radiation of Solids on Their Physico-chemical Properties; I.Ye. Mikhaylenko, V.I. Spitsyn: Isotope Exchange in the System $K_2SO_4 - SO_3$ at High Temperature. Kafedra khimicheskoy kinetiki

Card 2/4

(Chair of Chemical Kinetics): I.V. Berezin, V.L. Antonovskiy, N.F. Kazanskaya: Application of Tritium for the Purpose of Determining the Velocity Constants of the Separation of Organo-hydrogen Compounds. An.N. Nesmeyanov delivered a detailed lecture on the Methodology of Radiochemical Instruction at the chemical departments of universities.

Card 3/4

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KAZANSKAYA, N. F. Cand Chem Sci -- (diss) "Study of the conversions of intermediate products during the oxidation of cyclohexane in liquid phase." Mos, 1959. 10 pp (Mos State Univ im M. V. Lomonosov. Chem Faculty. Chair of Chem Kinetics), 150 copies. (KL, 41-59, 103)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

SOV/20-126-3-38/69

5(4)

AUTHORS: Berezin, I. V., Kazanskaya, N. F.

TITLE: The Sequence of the Formation of Products in the Case of the Liquid Acidification of Cyclohexane in Steel Vessels (Posledovatel'nost' obrazovaniya produktov pri zhidkofaznom okislenii tsiklogeksana v stal'nom sosude)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 594 - 597 (USSR)

ABSTRACT: It is said in the introduction that the essential part of the products of the acidification of hydrocarbons is formed by the decomposition of hydrogen peroxide. A scheme is given of a possible acidification of cyclohexane in the liquid state, after which a method is suggested for the synthesis of a radioactive hydrogen peroxide of cyclohexyl. This method is explained on the basis of the aforementioned scheme. The general radioactivity of the product is given in formula (1) as a function of molar radioactivity, and by formula (2) the time-dependent variation of radioactivity is given. From these formulas, formula (5) is then developed for the rate at which the molar radioactivity of cyclohexane increases. The experi-

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ments were carried out in a steel vessel at 140°C and at a pressure of 10 at, and figure 1 shows the curve of the products in dependence on time. A further diagram (Fig 2) shows the variation with respect to time of molar activity, and table 1 shows the rate of the formation of alcohol at various points of time. Finally, the obtaining of cyclohexanyl is briefly discussed. There are 2 figures, 1 table, and 10 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: Janaury 29, 1959, by N. N. Semenov, Academician

SUBMITTED: January 27, 1959

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5(4),5(3) SOV/20-126-4-33/62

AUTHORS: Borezin, I. V., Kazanskaya, N. F., Privalov, V. F.

TITLE: Degenerate Branching Mechanism on Liquid-phase Oxidation of Cyclohexane in a Steel Container (O mekhanizme vyrozhdennykh razvetvleniy pri zhidkofaznom okislenii tsiklogeksana v stal'nom sosude)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 809-812 (USSR)

ABSTRACT: The authors investigated the oxidation process of cyclohexanone during oxidation of cyclohexane in the liquid phase. The carefully purified cyclohexane was oxidized with air under a pressure of 10 atmospheres at 142°, 150° and 157° in a steel container. In the reaction mixture, cyclohexanone, cyclohexanol and hydroperoxide cyclohexyl were analyzed quantitatively (Ref 2). The kinetic curves of the products of oxidation at 150° and those of cyclohexanone are given in figure 1 at all three temperatures investigated. After a certain time cyclohexanone was added to oxidizing cyclohexane the former of which was marked by radioactive carbon in the carbonyl group. Subsequently samples of oxidized cyclohexane were taken and after precipitation of cyclohexanone as 2,4-dinitro phenylhydrazone the

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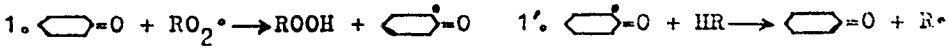
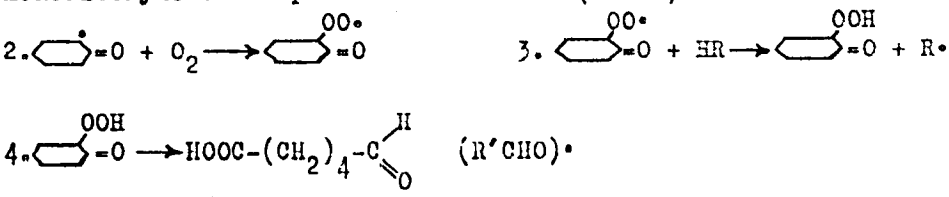
specific radioactivity of the latter determined. On the basis of the analysis results the authors suggest the following mechanism for the reaction investigated: The molecules of cyclohexanone are first attacked by free cyclohexylperoxide radicals, thus causing that a hydrogen atom in α-position to the keto group of cyclohexanone is separated:



The forming keto radical forms an α-keto hydroperoxide in rapidly proceeding conversions, which easily decomposes whereby monoaldehyde of adipic acid is formed (Ref 8):



Card 2/4 This monoaldehyde is easily oxidized under the formation of

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acylhydroperoxide, which decomposes at once, thus forming 2 new radicals:

5. $R'CHO + R\bullet \longrightarrow RH + R'C\bullet O$ 6. $R'C\bullet O + O_2 \longrightarrow R'C(=O)(OO\bullet)$

7. $R'C(=O)(OO\bullet) + HR \longrightarrow R'C(=O)(OOH) + R\bullet$ 8. $R'C(=O)(OOH) \longrightarrow R'C(=O)(O\bullet) + \bullet OH$

9. $R'C(=O)(O\bullet)(HO\bullet) + 2RH \longrightarrow R'C(=O)(OH) + H_2O + 2R\bullet$

The sequence of reactions 1-9 is so rapid that there are no measurable quantities of hydroperoxide of cyclohexanone, of the monoaldehyde of adipic acid and of peradipic acid in the system. As a result of all 9 equations it was found that instead of the used up radical ROO• three new radicals are forming which may react with oxygen:

Card 3/4 10. $R\bullet + O_2 \longrightarrow RO_2\bullet$ 11. $2RO_2\bullet \rightarrow$ discontinuance

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The velocity of the ramification is given by the velocity of equation 2, which practically proceeds from left to right. If, however, there are by-reactions, the velocity of ramification is smaller than the velocity of oxidation of cyclohexanone. The velocity of oxidation of cyclohexanone is, according to the above considerations, of second order which is in good agreement with experimental data. The small value of the experimentally found activation energy (24 kcal per mol) agrees well with the character of the elementary reaction. There are 2 figures, 1 table, and 10 references, 8 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: January 29, 1959, by N. N. Semenov, Academician

SUBMITTED: January 27, 1959

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

87537
S/079/60/030/012/023/027
B001/B064

5.4300 1273 1160 1242

AUTHORS: Berezin, I. V., Kazanskaya, N. F., and Martinek, K.

TITLE: Reactivity of Toluene Bonds in the Interaction With Free Methyl Radicals

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp.4092-4093

TEXT: The authors investigated the reactivity of tritium atoms in different positions in the toluene molecule, in the reaction of the latter with free methyl radicals. The reaction proceeded by thermal decomposition of acetyl peroxide in a medium of toluenes tagged with tritium, at a temperature between 60-96°C (Ref.1). The methane formed was separated from the other reaction products and toluene, pumped into the counter, where its radioactivity was determined. The specific radioactivity of the toluene used in the experiments was determined in the same counter. The radioactivity of the toluene used for the experiments has the following ratio: $I_m/I_{tol} = K_i^T/K_\sigma^H$, where K_i^T = the constant for the velocity with which the CH_3 radical separates tritium in the position i; K_σ^H = the total

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constant for the separation of the hydrogen atoms from the toluene molecule (Ref.2). Since K_{σ}^{H} is independent of the character of tagging, it is possible to determine by this formula the ratio between the rate constants of the reactions of the methyl radical with C - T bonds in different positions. The relative rate constants, the differences of the activity energies, and the ratio of the factors of the exponential function, the separation reactions of the tritium atoms and hydrogen on different bonds of the toluene molecule by free methyl radicals were determined. It was shown that the growth of the methane activity forming in the interaction of methyl and toluene, which is tagged with tritium in the cycle, is due to the addition of methyl to the π-bonds and the formation of products containing mobile tritium atoms. The following data are listed:

tagged with T	K_i^T/K_n^T at 85°C	$\Delta E = E_i^T - E_{CH_3}^H$ (cal/mole)	$A_i^T/A_{CH_3}^H$
ortho-	0.76	4750±100	1±0.15
meta-	0.22	7900±250	23±8
para-	1	4800±100	1.4±0.12
CH_3 group	156	2200±100	1.8

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87537

Reactivity of Toluene Bonds in the Interaction With Free Methyl Radicals

S/079/60/030/012/023/027
B001/B064

There are 1 table and 3 references: 2 Soviet and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: January 26, 1960

Card 3/3

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

31549
S/081/61/000/022/020/076
B102/B108

11.1510

AUTHORS: Berezin, I. V., Kazanskaya, N. F.

TITLE: The problem of determining the relative reactivity of free radicals

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 146, abstract 22Zh35 (Sb. nauchn. rabot. In-t Fiz.-organ. khimii AN BSSR, no. 8, 1960, 88-92)

TEXT: The determination of the reactivity of two radicals in the reactions $R' + HX \underset{k_o'}{\overset{k_n'}{\rightleftarrows}} R'H + X$ and $R'' + HX \underset{k_o''}{\overset{k_n''}{\rightleftarrows}} R''H + X$ leads to the determination of the ratio k_n'/k_n''. Usually, the ratio of the reaction rate constants of the inverse processes is easily found. The problem is reduced to finding k_n'/k_n'' from the known ratio k_o'/k_o''. Since the equilibrium constants of these processes are $k_p' = k_n'/k_o'$ and

Card 1/2

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The problem of determining the...

$k_p'' = k_n''/k_o''$, $k_n'/k_n'' = k_o'/k_o'' \cdot k_p'/k_p''$, where $k_o'/k_o'' = \lambda$ is known. Under certain assumptions the authors find the relation $k_n'/k_n'' = \lambda \sigma_{R'} \sigma_{R''H}/\sigma_{R'H}\sigma_{R''} \exp[-(D_{R''H} - D_{R'H})/RT]$ by expressing the equilibrium constants through the statistical partition function. When the number of symmetries σ equals unity, $k_n'/k_n'' = A_o'/A_o'' \exp[-(E_n' - E_n'')/RT]$, where $E_n' - E_n'' = E_o' - E_o'' + D' - D''$. The reaction of toluyl radicals of various structures with CH_3T is given as an illustrating example.

[Abstracter's note. Complete translation.]

Card 2/2

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BEREZIN, I.V.; KAZANSKAYA, N.F.; MARTINEK, K.

Reactivity of toluene bonds in the interaction with free methyl radicals. Zhur. ob. khim. 30 no.12:4092-4093 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet.
(Radicals (Chemistry)) (Toluene)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

S/081/62/000/004/004/087
B149/B101

11 1510
11 0132.

AUTHORS: Berezin I. V., Vatsek K., Kuo-Ch'u, Dobish O., Kazanskaya N. F.

TITLE: Investigation of the kinetics of elementary free-radical reactions in the liquid phase using tritium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 62, abstract 4B429 (Tr. po khimii i khim. tekhnol. [Gor'kiy] no. I, 1961, 18-30)

TEXT: The reactivity (R) of cis-decalin (I) and trans-decalin (II) in the reaction with free radical CH_3, generated by decomposition of acetyl peroxide at 55-90°C was investigated with the help of tritium (T). The rate of reaction of I and II with CH_3 was measured with reference to the standard reaction of breaking off a T atom from tritium-containing cyclohexane by the CH_3 radical. The ratio of the rate constants for the reactions between CH_3 and I and II is 1.56. The relative R of T atoms,

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Investigation of the kinetics of ... S/081/62/000/004/004/087
B149/B101

substituted in toluene in the ortho, meta, and para positions and in the CH_3 group has been determined. The probable mechanism of the reaction between the CH_3 radical and the T atom in the hydroxyl group in trimethyl carbinol is considered and the abnormally high value of the factor of the power function and of the activation energy of this process is explained. The possibility of using T for approximate determination of the relative R of free radicals is demonstrated. [Abstracter's note: Complete translation.]

Card 2/2

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BEREZIN, I.V.; KAZANSKAYA, N.F.; MARTINEK, K.

Reactivity of toluene bonds in the reaction with free methyl radicals. Zhur.fiz.khim. 35 no.9:2039-2046 '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Toluene) (Radicals (Chemistry))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ANTONOVSKIY, V.L.; BEREZIN, I.V.; KAZANSKAYA, N.F.

Use of tritium for determining the relative constants of the rate of detachment of hydrogen atoms in organic compounds. Relative reactivity of carbon-hydrogen bonds of hydrocarbons in radical reactions. Izv.vys.ucheb.zav.; khim.i khim.tekh. 5 no.1:94-100 '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, kafedra khimicheskoy kinetiki.
(Hydrogen bonding) (Hydrocarbons) (Radicals (Chemistry))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

DERING, V. [Doering, W.v.E.], prof.; KAZANSKAYA, N.F. [translator]

Cope rearrangement and problems involved in it. Zhur. VKHO 7 no.3:308-317 '62. (MIRA 15:6)
(Chemical structure)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BEREZIN, I.V.; KAZANSKAYA, N.F.

Kinetic isotopic effect of secondary tritium atoms of the n.heptane-t molecule in the liquid phase reaction with free methyl radicals, and the reactivity of 4-C - T bonds. Zhur. fiz.khim. 36 no.8:1800-1802 Ag '62. (MIRA 15:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Tritium) (Heptane) (Radicals (Chemistry))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BEREZIN, I.V.; VATSEK, K.; KAZANSKAYA, N.F.

Interaction of free methyl radicals with the hydroxyl hydrogen atoms of tertiary butyl alcohol. Role of hydrogen bonds. Dokl. AN SSSR 144 no.1:139-142 My '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom N.N.Semenovym.
(Radicals (Chemistry)) (Butyl alcohol) (Hydrogen bonding)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ACCESSION NR: AP4011444 S/0076/64/038/001/0125/0129

AUTHORS: Berezin, I. V. (Moscow); Kazanskaya, N. F. (Moscow); Pentin, Yu. A. (Moscow)

TITLE: Spatial structure and reactivity of the C-H bonds in 2,2,4-trimethylpentane

SOURCE: Zhurnal fiz.khim, v. 38, no. 1, 1964, 125-129

TOPIC TAGS: trimethylpentane, C-H bonds, spatial structure, C-T bonds

ABSTRACT: Using tritium tagging, the relative activity of different C-T bonds in a 2,2,3-trimethylpentane molecule was investigated. The results of this study indicate that the molecules of this compound at 60-90C are in the form of a conformation isomer where the C-H bond of the tertiary carbon atom is strongly screened. During the study, the rate constant of the methyl radical interaction with the C-T bond of the 2,2,4-trimethylpentane tagged in certain position, and the ratio of this rate to the rate constant of its interaction with the whole

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ACCESSION NR: AP4011444

molecule (equal to the ratio of specific radioactivity of methane formed in the reaction to the specific radioactivity of the initial hydrocarbon), as well as the temperature dependence of this ratio, were measured. By determining the C-T reactivity and making some assumptions, the C-H reactivity could be evaluated. In the course of this work, 2,2,4-trimethylpentane-4-T and -3-T were synthesized, and their infrared spectra were recorded with a UR-10 spectrometer. The spectra of combined diffusion were also recorded with DFS-12 spectrometer. It was concluded that 2,2,4-trimethylpentane both in the liquid and crystalline states exists in a single conformation state. Orig. art. has 3 Figures, 1 Table.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 25Mar63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: CH NR REF SOV: 009 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

ACC NR: AP7012424 SOURCE CODE: UR/0189/66/000/003/0029/0034

AUTHOR: Koler, V.; Kazanskaya, N. F.; Berezin, I. V.

ORG: Department of Chemical Kinetics, Moscow State University (Kafedra khimicheskoy kinetiki moskovskogo gosudarstvennogo universiteta)

TITLE: Reactivity of hydrogen in the hydroxyl groups of CH sub 3 OH, iso-C sub 3 H sub 7 OH and (CH sub 3) sub 3 COH in reaction with free methyl radicals in the liquid phase

SOURCE: Moscow, Universitet. Vestnik. Seriya II. Khimiya, no. 3, 1966, 29-34

TOPIC TAGS: hydroxylgroup, methyl alcohol, liquid nitrogen

SUB CODE: 07

ABSTRACT: The method of competing reactions was used to determine the rate constants of the following elementary reactions in the liquid phase:

$$ROT + CH_3^{\cdot} \xrightarrow{K_{OT}} CH_3T + RO^{\cdot}, \quad (1)$$

$$n\text{-}C_7H_{16} + CH_3^{\cdot} \xrightarrow{K_{CH}} CH_4 + C_7H_{15} \quad (2)$$

 UDC: 541.124/128

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where $R = CH_3$, $(CH_3)_2CH$ and $(CH_3)_3C$.

In addition, the reactivity of methyl alcohol in reaction with methyl radicals without solvent was studied.

The $CH_3T - CH_4$ mixture formed in the experiments was separated from the remaining reaction products by freezing with liquid nitrogen, and its specific radioactivity I_m (pulses·mm^{-1} min^{-1}) was measured in an internal-filling counter. The specific radioactivity of the original alcohols $I_{cn(alc)}$ was measured with the same counter. Orig. art. has: 2 figures, 5 formulas and 4 tables.

[JPRS: 40,422]

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

EXCERPTA MEDICA Sec 10 Vol.11/8 Obstetrics Aug 58

1280. COURSE AND MANAGEMENT OF MULTIPLE PREGNANCIES (Russian text) - Kazanskaya N. I. - SOVET. MED. 1957, 21/2 (30-35)

The course of multiple births in 290 women is analysed. Premature births were observed in 158 cases (54.4%). Diagnosis of multiple pregnancy was made before admission to hospital only in 85 women (29.3%). The author recommends a wider use of roentgenography for early diagnosis of multiple pregnancies. (S)

Chair of Obstetrics and Gynecology, Lst. Leningrad Med. Inst. im. I. P. Pavlov

KAZANSKAYA, N.I

VARSHAVSKAYA, F.E., KAZANSKAYA, N.I., LIPMANOVICH, S.G.

Course and outcome of abnormal labor [With summary in English]. Akush. i gin. 34 no.2:40-44 Mr-Ap '58 (MIRA 11:5)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

1. Iz kafedry akusherstva i ginekologii (zav. - prof. S. G. Yakovlev) I Leningradskogo meditsinskogo instituta imeni akad. I. P. Pavlova.

(LABOR, compl.
abnorm. labor, etiol. and course (Rus)

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

BULAVINTSEVA, A.I., kand. med. nauk; KAZANSKAYA, N.I., kand.med. nauk; KASHINSKIY, A.V., kand. med. nauk; LIPMANOVICH, S.G., kand. med. nauk; NARBUT, Ye.I., kand. med. nauk; POKROVSKIY, V.A., zasluzhennyy deyatel' nauki RSFSR, prof.; ROMANOVSKIY, R.M., kand. med. nauk; TUMANOVA, Ye.S., prof.; YAKOVLEV, I.I., zasluzhennyy deyatel' nauki RSFSR, prof.; LANKOVITS, A.V., prof., nauchnyy red.; PERSIANINOV, L.S., prof., otv. red.; BEKKER, S.M., prof., red.; BELOSHAPKO, P.A., prof., red. [deceased]; ZINAKIN, K.N., prof., red.; ZHORDANIA, I.F., prof., red.; LEBEDEV, A.A., prof., red.; MANENKOV, P.V., prof., red.; STEPANOV, L.G., kand. med. nauk, red.; SYROVATKO, F.A., prof., red.; FIGURNOV, K.M., prof., red.; PORAY-KOSHITS, K.V., red.; LANKOVITS, A.V., red.; SENCHILO, K.K., tekhn. red.

[Multivolume manual on obstetrics and gynecology] Mnogotomnoe rukovodstvo po akusherstvu i ginekologii. Moskva, Gos.izd-vo med. lit-ry. Vol.6. 1961. 679 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Persianinov, Beloshapko, Figurnov).
(OBSTETRICS—SURGERY) (GYNECOLOGY, OPERATIVE)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

VARSHAVSKAYA, F.E.; KAZANSKAYA, N.I.

Management of labor in women with late toxemias of pregnancy. Vop. okh.mat.i det. 7 no.4:57-62 Ap '62. (MIRA 15:11)

1. Iz kafedry akusherstva i ginekologii Leningradskogo meditsinskogo instituta imeni I.P.Pavlova (zav. - prof. I.I.Yakovlev).
(PREGNANCY, COMPLICATIONS OF) (LABOR (OBSTETRICS))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, N.S.

11(2,4) PHASE I BOOK EXPLOITATION SOV/2536

Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti.

Problemy nefti i gaza (Oil and Gas Problems) Moscow, Gostoptekhizdat, 1959. 362 p. (Series: Its: Trudy, vyp 24) Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Ministerstvo vysshego obrazovaniya SSSR.

Exec. Ed.: G. F. Morgunova; Tech. Ed.: I. G. Fedotova; Editorial Board: K. F. Zhigach, Professor (Resp. Ed.), I. M. Murav'yev, Professor, A. A. Tikhomirov, Candidate of Economic Sciences, V. N. Vinogradov, Candidate of Technical Sciences, M. M. Charygin, Professor, F. F. Dunayev, Professor, I. A. Charnyy, Professor, V. N. Dakhnov, Professor, G. M. Panchenkov, Professor,

PURPOSE: This collection of articles is intended for specialists in the petroleum and gas industry. It will also be of interest to scientific research institutes, teachers and students of vuzes.

COVERAGE: This collection of articles reviews problems connected with natural and synthetic gas production. A number of articles are devoted to the study of regional oil- and gas-bearing zones, the crystalline beds underlying the Volga-Urals petroliferous region, tectonics of the Caspian depression, seismic prospecting, oil well logging, development of oil and gas fields, petroleum-bearing formations and their physicochemical characteristics, and petroleum engineering. Other articles deal with gas turbine engines and their possible use in the oil and gas industry, the production of carboxymethylcellulose compounds, the application of ionic exchange tars to the organic catalysis, continuous coking of heavy petroleum residues, (fluidization), the improvement of lube oil production, and the influence of acid esters on properties of lubricating oil and grease. The book contains a number of photographs, tables, flow sheets, and diagrams, among which those relating to coal gasification and conversion of heavy petroleum residues over a fluidized bed catalyst deserve special attention. References accompany individual articles.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, N.S.

Special features of the natural pastures and meadows of Kursk Province in connection with natural regionalization. Izv. AN SSSR Ser. geog. no.6:56-65 N-D '64 (MIRA 18:1)

1. Institut geografii AN SSSR.

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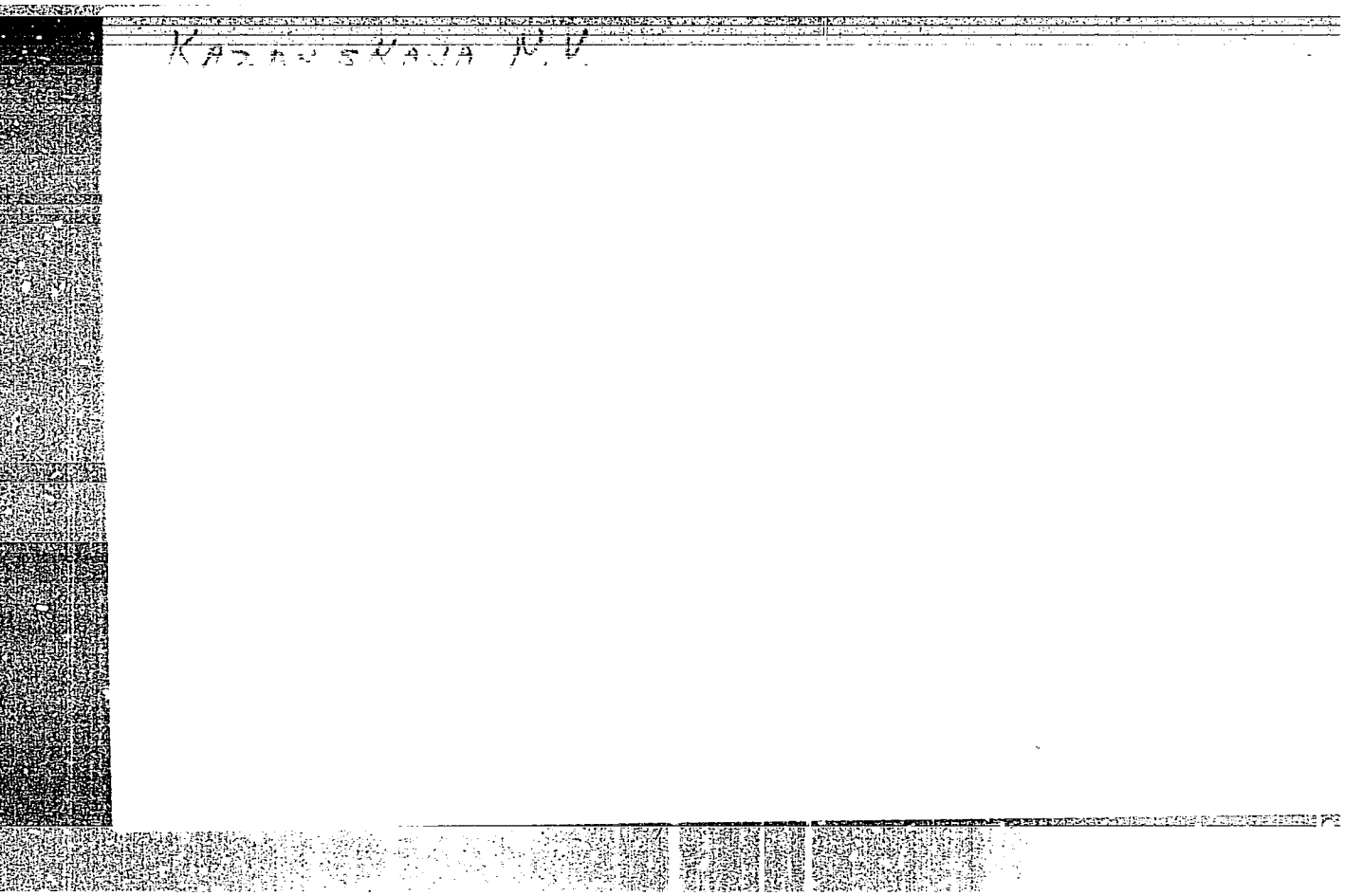

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KAZANSKAYA, N. V.

USSR/Chemistry - Physical chemistry

Card 1/1 : Pub. 151 - 22/42

Authors : Kashtanov, L. I., and Kazanskaya, N. V.

Title : The mechanism of inhibiting action

Periodical : Zhur. ob. khim. 24/9, 1597-1599, Sep 1954

Abstract : The effect of presently used rubber oxidation inhibitors (agerite and niazone) on the rate of oxidation of sodium sulfite was investigated. It was found that phenol inhibits the oxidation of sulfurous anhydride lead sulfate, chloroform and rubber. Sulfurous anhydride inhibits the oxidation of phenol. The inhibiting effects of hydroquinone, aniline and other amines on the oxidation of rubber, bivalent lead, iron, etc. are explained. Twelve references: 5-USSR; 4-German; 2-USA and 1-French (1898-1949). Tables.

Institution : The S. Ordzhonikidze Engineering-Economics Institute, Moscow

Submitted : April 29, 1954

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, N. V.

USSR/Chemistry - Inhibition

Card 1/1 Pub. 147 - 3/27

Authors : Kashtanov, L. I., and Kazanskaya, N. V.

Title : Mechanism of the inhibiting effect of aromatic amines on the rate of oxidation of sodium sulfite

Periodical : Zhur. fiz. khim. 28/9, 1547 - 1549, Sep 1954

Abstract : Experiments showed that the mechanism of the inhibiting effect of aromatic amines consists in the formation of compounds between the inhibitor and the inhibiting substance. It was established that the stability of compounds formed between inhibitor and inhibited substance depends upon the polarity value of the inhibitor. The relation between the activity of the inhibitor and the value of the dipole moment of the inhibitor is explained. The effec of temperature on the inhibiting power of aromatic amines on the rate of sodium sulfite oxidation is described. Five USSR references (1935-1954). Tables; graphs.

Institution : The S. Ordzhonikidze Engineering-Economy Institute, Moscow

Submitted : June 13, 1953

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

Kazanskaya, N. V.

Mechanism of inhibitor action. L. I. Kashtanov and N. V. Kazanskaya (Eng. Econ. Inst., Moscow). *Zhur. Obshch. Khim.* 20, 184-6(1950); cf. *C.A.* 49, 2841e.—The rate of oxidation of Na_2SO_3 in the presence of HCl, urotropine (I) and Et_2O (free of peroxide) was exaind. at 0.05–0.1% concn. of the inhibitors. The results indicate that HCl acts as an inhibitor more strongly than does I, but Et_2O was the most powerful inhibitor in this group. Since Et_2O also inhibits oxidation of BzH and $SnCl_2$, and since HCl also inhibits oxidation of H_2S and $FeCl_2$, whereas I inhibits oxidation of H_2S, a unity of mechanism of inhibitor action is suggested. The cause of inhibition may be a solvate complex or compd. formed by the substrate with the inhibitor.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA N.V.

USSR/Kinetics - Combustion. Explosions. Topochemistry. Catalysis. B-9

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18578

Author : L.I. Kashtanov, N.V. Kazanskaya.
Title : To The Question of Mechanism of Inhibition of Oxidation Process of Sodium Sulfite.

Orig Pub : Zh. fiz. khimii, 1956, 30, No 8, 1707-1709

Abstract : The inhibiting action of $AlCl_3$, $(C_2H_5)_2O$, C_6H_6 and $C_6H_5NO_2$ (inhibitor concentration 0.05 to 0.1%) on the oxidation process of Na_2SO_3 by oxygen at 18° in presence of HCl was studied. The introduction of an inhibitor results in a great drop of oxidation speed during the first 15 to 20 minutes, after which a complete discontinuation of the reaction is observed. Mixtures of $AlCl_3$ with C_6H_6, $(C_2H_5)_2O$ and $C_6H_5NO_2$ affect stronger than each of them separately. The authors connect it with the increase of the inhibiting action with the increase of the inhibitor polarity observed previously (RZhKhim, 1955, 1833, 23290, 31255). Polar compounds of the type $AlCl_3 \cdot C_6H_5NO_2$ are produced in this case.

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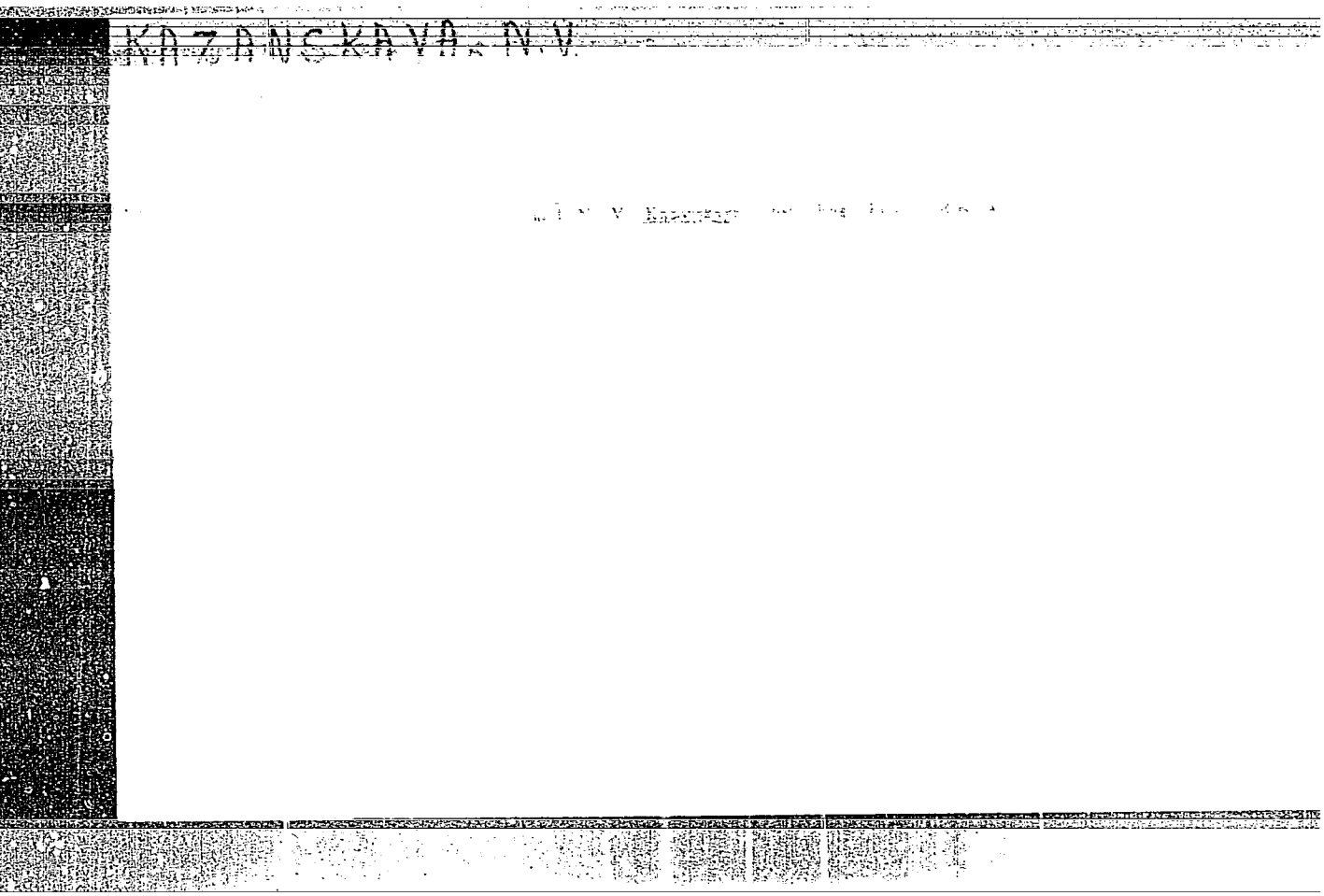

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, O.B.; ROZENSHTEYN, D.I. [deceased]; FRENKEL', V.I.

Bibliography of works prepared by associates of the institute during the past 50 years. Trudy Gos. nauch.-issl. psikhonevr. inst. no. 16:25-178 '58. (MIRA 13:10)

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KAZANSKAYA, O.B.

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SOVETOVA, A.N.; KAZANSKAYA, O.P.

Significance of osteoplastic fixation of the spine in association with radical interventions in tuberculous spondylitis. Vest.khir. no.4:42-46 '61. (MIRA 14:4)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta khirurgicheskogo tuberkuleza (dir. - prof. P.G. Kornev).
(SPINE—TUBERCULOSIS)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, T. B.

"The Relation of the Formation of Lactic Acid to the Development of Thermobacterium Cereals." Sub 29 Jun 51, Inst of Microbiology, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

AGATOV, P.A., KAZANSKAYA, T.B.,

Physiology of Actinomyces streptomycini and its relation to streptomycin production. Report No.3: Dynamics of nitrogen-containing substances in the development of Actinomyces streptomycini on a medium containing corn extract [with summary in English]. Antibiotiki, 3 no.3:28-30 My-Je '58 (MIRA 11:7)

1. Institut mikrobiologii AN SSSR.
(ACTINOMYCES, culture,
streptomycini, nitrogen-containing substances in cultures containing corn extract (Rus))
(NITROGEN, metabolism,
in Actinomuces streptomycini cultures containing corn extract in medium (Rus))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

AGATOV, P.A.; KAZANSKAYA, T.B.

Relation of physiology to streptomycin synthesis in Actinomyces streptomycini; dynamics of nitrogen-containing substances in the development of Actinomyces streptomycini on a synthetic medium. Antibiotiki 3 no.5:31-33 S-O '58. (MIRA 12:11)

1. Institut mikrobiologii AN SSSR.
(ACTINOMYCES, culture,
growth of Actinomyces streptomycini in nitrogen containing synthetic media (Rus))
(NITROGEN, eff.
on Actinomyces streptomycini growth in synthetic media (Rus))

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, T.B.

Conference in memory of T.A. Tauson. Mikrobiologiia 27 no.5:660 S-O '58 (MIRA 11:12)

(TAUSON, TAISIIA ALEKSEEVNA, 1899-1953)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

17(2)

AUTHOR: Kazanskaya, T. B. SOV/20-123-3-51/54

TITLE: The Effect of Soya-Bean Oil and of Its Components Upon the Production of Streptomycin (Vliyaniye soyevogo masla i yego komponentov na streptomitsinoobrazovaniye)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 3, pp 561-563 (USSR)

ABSTRACT: In recent years, strains of Act.Streptomycini were obtained by selection, which produce large amounts of streptomycin on a culture medium of soya-bean flour. As is known, this flour contains 19% oil (Ref 1). Experiments have proved that the elimination of oil reduced the formation of streptomycin (in accordance with reference 2). Since in reference 2 Streptomyces griseus is concerned the author decided to investigate the effect of soya-bean oil upon Act.Streptomycini. Tables 1 and 2 present the principal results (maximum quantities of streptomycin and final pH values). The experiments give the best streptomycin yields if degreased soya-bean flour with palmitic acid or soya-bean oil was used for the production of the culture media. The experiments with the strain PS-1 of Act.Streptomycini furnished the following

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results: 1) On culture media with degreased soya-bean flour the production of streptomycin was reduced by the 2-3-fold. 2) On the addition of palmitic acid or soya-bean oil the streptomycin quantity was increased by the 3-3,5-fold and attained 80-90% of the yield of unchanged flour. V. N. Shaposhnikov, Academician, supervised these investigations. There are 2 tables and 2 references, 1 of which is Soviet.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR (Institute of Microbiology, Academy of Sciences, USSR)

PRESENTED: August 7, 1958, by V. N. Shaposhnikov, Academician

SUBMITTED: August 5, 1958

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, T.B.; ANDREYEVA, Ye.A.

Effect of nitrogen fractions of soya flour and certain amino acids on growth and the biosynthesis of streptomycin. Trudy Inst. mikrobiol. no. 6:225-233 '59. (MIRA 13:10)

1. Institut mikrobiologii AN SSSR.
(AMINO ACIDS) (SOY-BEAN FLOUR) (STREPTOMYCIN)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

AGATOV, P.A.; KAZANSKAYA, T.B.

Use of vegetable raw material in streptomycin production. Mikrobiologiia 28 no.6:858-862 N-D '59. (MIRA 13:4)

1. Institut mikrobiologii AN SSSR.
(STREPTOMYCIN chem.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

17(2,12)

AUTHORS: Shaposhnikov, V. N., Academician, Kazanskaya, T. B.

SOV/20-127-5-51/58

TITLE: Interrelations Between the Chemical Composition of Soy-bean Meal Fractions and Streptomycin Formation in Actinomyces streptomycini

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1117-1120 (USSR)

ABSTRACT: Soy-bean oil and palmitic acid as well as the basic amino acids and leucine stimulate the streptomycin formation by Act. streptomycini LS-1 (Ref 1). The above data were, however, insufficient for the establishment of a synthetic culture medium for this strain. Therefore the authors investigated various amino acid fractions of the hydrolysates of soy-bean meal in order to prove the connection between the chemical conposition of these fractions and the streptomycin formation. The following mixture (in %) served as culture medium: glucose 2, $(NH_4)_2SO_4$ 0.3, NaCl 0.25, KH_2PO_4 0.05, $CaCO_3$ 0.3, and distilled water. 2% soy-bean meal or another organic substance containing 112 g total nitrogen per 100 ml

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

culture medium (like in soy-bean meal) were added. In the latter case also an addition of inosite, $MgSO_4$, and of trace elements was used. 2 ml of a 72 - 96 hours old culture of the LS-1 strain from the Vsesoyuznyy nauchno-issledovatel'skiy Institut antibiotikov (All-Union Scientific Research Institute of Antibiotics) were sown on the culture medium. Hydrolysates from degreased soy-bean meal were produced by H_2SO_4 and HCl (A. N. Belozerskiy and N. I. Proskuryakov, Ref 2) as well as by NaOH. After the removal of humins and NH_3 the hydrolysates were separated into 2 fractions: (a) into basic amino acids, (b) into monoamino acids. Streptomycin was determined by Bac. mycoides as experimental object. Nitrogen was determined in either fraction (Table 1). These data show that the hydrochloric acid hydrolysates contain more amino acid nitrogen than those obtained by H_2SO_4 and NaOH. The ratio between the basic amino acids and the monoamino acids was highest in the fractions obtained by alkaline hydrolysis. The results of the

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analyses agreed with the data of K. G. Ioffe and Ye. A. Yermakova. Table 2 shows that the monoamino acids are more favorable for the growth of Actinomycetes, whereas the basic amino acids stimulate the streptomycin formation. Since the detection of a possibly simple culture medium was the object of these experiments the above experiments were not continued. The following culture medium is recommended for the preliminary physiological investigation of the LS-1 strain:(in %) proline 0.92, glucose 2, $(NH_4)_2SO_4$ 0.3, NaCl 0.25, KH_2PO_4 0.1, inosite 0.025, $MgSO_4$ 0.1, $MnSO_4$, $ZnSO_4$, and $FeSO_4$ 0.0001 each. The biomass amounts on the culture medium to 800 mg-%; 1300-1400 γ/ml streptomycin are produced. Another paper will deal with the problem of the proline effect and other compounds of the pyrrole group. The following conclusions are drawn from the results: (1) The hydrolysate fractions of soy meal containing basic amino acids consist of arginine, histidine, lysine, and proline. (2) These fractions are more

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favorable for the streptomycin production by the strain LS-1 than the monoamino acid fractions. There are 2 tables and 7 references, 6 of which are Soviet.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR (Institute of Microbiology of the Academy of Sciences, USSR)

SUBMITTED: June 6, 1959

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

17(2) SOV/20-128-4-57/65

AUTHORS: Shaposhnikov, V. N., Academician, Kazanskaya, T. B., Poltava, I. G.

TITLE: The Effects of Compounds of the Pyrrole Group on the Development of Actinomyces streptomycini

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 4, pp 840-842 (USSR)

ABSTRACT: The fungus mentioned in the title grows well on a medium containing one single nitrogen source, namely the amino acid proline (of the pyrrole group (I)); physiologically active substances containing one pyrrole ring ((II)-(VIII)) are mentioned. The problem still to be solved is, whether Act. streptomycini makes use of the pyrrole ring or whether a pyrrole ring which is connected with a certain atom group, is required for the development of this fungus. For this purpose experiments with some of the mentioned compounds had to be made. Earlier experiments with oxyproline showed that this substance alone, in contrast to proline, favors the growth of Actinomycetes. A list of publications (Refs 2-6) is given which shows that there are hardly any data on the subject concerned. Therefore the effect mentioned in the title

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The Effects of Compounds of the Pyrrole Group on the Development of Actinomyces streptomycini

is ment to be explained for the first time by the authors. Strain LS-1 from the Kiyevskaya selektsionnaya stantsiya (Kiyev Selection Station) growing on a mineral glucose containing medium, is used for this purpose. 2% of soya bean flour or amino acid or of any pyrrole compound were added which corresponded to a nitrogen content of 112 mg per 100 ml. For the method see reference 1. The effects of succinamide (VIII), succinimide (VII), pyrrolidine (II) and others, on the vital activity of strain LS-1 were examined. Proline (III) and oxyproline (IV) were also used for comparison. Table 1 shows the results. On the basis of these results, the authors arrived at the following conclusions: 1) synthetic media, containing proline, histidine with lysine and also one of the pyrrole group: (III), (VII), or (VIII), favor the growth of the fungus and the formation of streptomycin. The yields of the latter amounted to 74-84% of those with soya bean flour. 2) (IV), the only nitrogen source, favors the growth but stimulates the development of the antibiotic only weakly (Table 1). Added to media with basic amino acids (IV) also favors growth, but reduces the streptomycin yield (Table 2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

SOV/20-128-4-57/65

The Effects of Compounds of the Pyrrole Group on the Development of Actinomyces streptomycini

There are 2 tables and 6 references, 1 of which is Soviet.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR
(Institute of Microbiology of the Academy of Sciences, USSR)

SUBMITTED: July 2, 1959

Card 3/3

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721310018-8

KAZANSKAYA, Lyudmila Nikolayevna, kand. biolog. nauk; VOL'PER, I.N., dots., red.; SHILLING, V.A., red. izd-va; GVIRTS, V.L., tekhn. red.

[Role played by vitamins in increasing the food value of bakery and confectionery products; transcript of a report presented at the Leningrad Center for Scientific and Technical Propaganda at a seminar of baking industry workers] Znachenie vitaminov v povyshenii pishchevoi tsennosti khlebobulochnykh i konditerskikh izdelii; stenogramma doklada, prchitannogo v LDNTP na seminare rabotnikov khlebopekarnoi promyshlennosti. Pod red. I.N.Vol'pera. Leningrad, Leningr. Dom nauchno-tekhn. propagandy, 1961. 35 p. (MIRA 14:7)
(Baked products) (Vitamins)

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